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1995 ANNUAL
GROUND WATER SAMPLING REPORT
LIVINGSTON RAIL YARD
LIVINGSTON, MONTANA

Submitted to:

Montana Department Environmental Quality
Superfund Section
2209 Phoenix Avenue
Helena, Montana 59620

Submitted by:

Burlington Northern Railroad Company
777 Main Street, 14th Floor
Continental Plaza
Fort Worth, Texas 76102

Prepared by:

Envirocon, Inc.
P.O. Box 8243
Missoula, Montana 59807

Submittal Date:

January 3, 1996

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1.0 INTRODUCTION

This report is submitted to the Montana Department of Environmental Quality (MDEQ) and presents the results of ground water samples collected during the third and fourth quarters of 1994 and the first and second quarters of 1995 at the Livingston Rail Yard (LRY), in Livingston, Montana. The samples described in this report were collected for Burlington Northern Railroad (BNRR) by its contractor Envirocon, Inc.

The LRY is a Montana Superfund Site being investigated and remediated under a Modified Partial Consent Decree between Burlington Northern Railroad and the Montana Department of Environmental Quality (MDEQ). The LRY is underlain by an alluvial aquifer composed of coarse-grained sand and gravel. Beneath most of the LRY, the water table of this aquifer is approximately 20 feet below the ground surface. Beneath parts of the LRY, this aquifer contains a plume of dissolved, chlorinated volatile organic compounds (VOCs). A portion of the LRY is also underlain by a plume of weathered diesel fuel at the water table.

This report presents and interprets the results of ground water samples and free product thickness measurements collected from August 1994 through May 1995. Section 2.0 presents the number of samples, sample dates, and analytical methods used for each sample event. Section 3.0 presents the analytical results of ground water samples taken during the four quarterly sample events. Results are presented on tables showing all four sample events and on maps showing the extent of dissolved chlorinated ethenes in the May 1995 event. Long-term concentration trends are illustrated on graphs showing chlorinated VOC concentrations measured at particular wells during all ground water sample events since May 1989.

2.0 GROUND WATER SAMPLE EVENTS

Ground water sampling covered in this report consisted of the August 1994 quarterly event, November 1994 semiannual event, February 1995 quarterly event and the May 1995 annual sampling event. All ground water samples taken during the quarterly and semiannual sample events were analyzed for purgeable halocarbons by EPA Method 601. All ground water samples taken during the May 1995 sample event were analyzed for purgeable halocarbons by EPA Method 601 with the exception of samples from Wells LS-6, LS-11, L-87-2, L-87-7, L-87-8, L-88-10 and the B-Street municipal well which were analyzed for regulated and unregulated VOCs by EPA Method 524.2. All analyses were performed at Energy Laboratories, Inc. in Billings, Montana.

All monitor wells scheduled for sampling during August 1994, November 1994, February 1995, and May 1995 were sampled with the exception of Well LS-8. Monitoring Well LS-8 was abandoned during sludge removal activities at the API overflow pond in October 1992. The locations of all sample points are shown on Figure 1.0. Tables 1, 2, 3, and 4 summarize analytical results for tetrachloroethene (PCE); trichloroethene (TCE); cis-1,2-dichloroethene (DCE); and chlorobenzene, respectively. Laboratory analytical results are presented in Appendix A. A data validation report is included as Appendix B. The details of each sample event are presented below.

2.1 August 1994 Quarterly Ground Water Sampling Event

The August 1994 quarterly sampling event was conducted August 18 through 23, 1994. 22 samples were analyzed as part of this event: 18 were primary samples collected at monitoring wells within and around the LRY, two samples were field duplicates; one sample was a trip blank; and one sample was an equipment-decontamination blank.

2.2 November 1994 Semiannual Ground Water Sampling Event

The November 1994 semiannual sampling event was conducted November 22 through November 23, 1994. 25 samples were taken as part of this event: 21 were primary samples collected at monitoring wells within and around the LRY; two samples were field duplicates; and two samples were equipment decontamination blanks.

2.3 February 1995 Quarterly Ground Water Sampling Event

The February 1995 quarterly sampling event was conducted March 1 through March 2, 1995. 21 samples were taken as part of this event: 18 were primary samples collected at monitoring wells within and around the LRY; two samples were field duplicates; and one sample was an equipment decontamination blank.

2.4 May 1995 Annual Ground Water Sampling Event

The May 1995 annual ground water sampling event was conducted May 23 through June 2, 1995. 52 samples were taken as part of this event: 49 were primary samples collected at monitoring and private wells within and around the LRY; five were field duplicates; and six samples were equipment decontamination blanks.

3.0 SAMPLE RESULTS AND DISCUSSION

This section presents the results of samples taken during the quarterly, semiannual, and annual sampling events between August 1994 and May 1995. All sample results are presented in tabular form for PCE, TCE, cis-DCE, and chlorobenzene. Sample results from the May 1995 sample event are also

presented on maps showing the extent of dissolved PCE, TCE, and cis-DCE concentrations.

Apparent free-product thicknesses were measured quarterly in the monitor and observation wells located within the free-product plume. Thickness measurements represent the "apparent" free product thickness as opposed to the actual thickness. Apparent thicknesses are approximately two to four times greater than the actual free product thickness in the aquifer.

3.1 Ground Water Sample Results

Ground water samples collected during the August 1994 through May 1995 sampling events contained dissolved chlorinated-VOC concentrations that continued the long-term decline observed during the past six years. These concentration declines are a result of the limited total mass of chlorinated VOCs originally present at the LRY and the source control activities instituted on the LRY during the Remedial Investigation. Source control activities were described in the Final Remedial Investigation Report (Envirocon, 1994).

Figure 2.0 shows the distribution of dissolved PCE in May 1995. As shown on Figure 2.0, PCE is present in a plume stretching from the Electric Shop northeastward past the Yellowstone River. Although PCE is detectable over a large area, PCE concentrations above 100 ug/l are restricted to the area beneath the northern half of the Electric Shop and the center of the Locomotive Shop. The remainder of the plume contains relatively low PCE concentrations.

Figure 3.0 shows the distribution of dissolved TCE based on the May 1995 sample event. Most monitoring wells contained concentrations of TCE below the 5 ug/l Maximum Contaminant Level (MCL). TCE concentrations

above the 5 ug/l MCL are restricted to a narrow area stretching from the Waste Water Treatment Plant northeastward towards the Yellowstone River.

No cis-DCE concentrations were detected above the 70 ug/l MCL during the May 1995 sample event. Figure 4.0 shows the distribution of cis-DCE concentrations in the aquifer for May 1995. The primary source area for cis-DCE is the WWTP area and elevated cis-DCE concentrations are present downgradient from the WWTP toward the Yellowstone River.

The overall decline in dissolved chlorinated VOC concentrations is illustrated by plotting the concentrations measured at particular wells between May 1989 and May 1995. Figures 5.0 through 9.0 show the PCE concentrations declines in wells L-88-10, L-88-8, L-87-5, 89-4, and 89-9. As indicated on these figures, PCE concentrations in these wells have declined an average of 80 percent since May 1989. The decline in cis-1,2-DCE concentrations has been greater than that of PCE. Figures 10.0 and 12.0 show the cis-1,2-DCE concentration declines in monitoring wells L-87-2, L-88-10, and LS-11.

Monitoring wells 94-1 and 94-2 were installed on the east side of the Yellowstone River on March 30, 1994. Both of these wells are east of the map area shown in Figure 1.0. Monitoring well 94-1 is located approximately 1,000 feet east of the Yellowstone River and 1,500 feet north of Highway 89. Monitor Well 94-2 is located approximately 1,000 feet east of the Yellowstone River and 100 feet south of Highway 89. Sample results on Table 1.0, reveal that from August 1994 through May 1995, Well 94-1 contains PCE concentrations of 1.8 to 2.5 ug/l and Well 94-2 contained a PCE concentration of <0.5 to 0.65 ug/l. These are all below the 5 ug/l MCL for PCE.

Several anomalous sample results are observed in the sample events covered by this report. The August 1994 sample from Monitor Well L-88-10 did not contain any dissolved chlorinated VOCs. This is inconsistent with previous and later sample results from this well that typically contained 40 to 60 ug/l of PCE, 5 to 15 ug/l of TCE, and 30 to 60 ug/l of cis-DCE. A check of the sample log book and chain-of-custody forms revealed no irregularities about this sample.

The May 1995 sample from Well 89-4 did not contain any detectable PCE. This was anomalous because samples taken during August and November 1994 and February 1995 contained 80 to 87 ug/l of PCE. The TCE and cis-DCE concentrations measured in the May 1995 sample from Well 89-4 are consistent with previous sample results. No irregularities were noticed about this sample in a check of the sample log book and the chain-of-custody. The cause of this lack of detectable PCE is not known at this time.

The May 1995 sample from the B-Street municipal well contained 5.4 ug/l of PCE. Envirocon and representatives of the Livingston Water Department reviewed the sample records and determined that the B-Street well was not operational during the sample event. The sample tap where the sample was taken apparently produced water that had been stagnant in the piping during recent maintenance activities at the well. A second sample was taken from the B-Street well on July 20 1995 when the well was operating. No PCE was detected in this sample. The results of the May 1995 sample from the B-Street well are therefore considered invalid.

3.2 Free-Product Thickness Measurements

Table 5.0 shows all of the free-product thickness measurements taken between August 1994 and May 1995. Figure 13.0 shows the general outline

of the free product plume and the location of all wells measured between February and May 1994. As shown on Figure 13.0, many of the wells within the general outline of the free product plume do not contain any measurable free product. Moreover, of the wells containing measurable free product, most contain less than 1/4-foot total apparent thickness. Assuming that actual product thicknesses are approximately one-quarter of the apparent thickness, this indicates that the majority of the plume contains less than 1 inch of actual free product.

In late December 1995 free product was recovered from Well RW-6 with a product skimmer. Skimming continued for a period of two weeks and approximately 35 gallons of product was recovered during this period. As shown in Table 5.0, prior to recovery the apparent product thickness in Well RW-6 was 1.07 feet. Since recovery of 35 gallons of product, the apparent product thickness in Well RW-6 has only recovered to 0.22 feet. This indicates that although product recovery is possible, the quantity of product recoverable from an individual well is quite limited.

4.0 CONCLUSIONS

This report presents the results of the sixth complete year of ground water sampling at the LRY. The two primary ground water problems at the LRY are a plume of dissolved chlorinated VOCs in the aquifer and a plume of free and residual diesel fuel at the water table. These two plumes had separate source areas and only partially overlap.

Both the concentrations of dissolved VOCs and the apparent thickness of the free product plume have decline steadily since 1989. Ground water monitoring during this reporting period continues this declining trend. At most monitoring well locations, the dissolved chlorinated VOC concentrations

have declined more than 80 percent since 1989. The apparent free product thicknesses measured in monitoring wells have declined to the point where free product recovery has not been practical in any of the recovery tests.

The Final Remedial Investigation Report was submitted to the MDEQ in March 1994 and the Draft Feasibility Study Report was submitted to the MDEQ in August 1994. The Final Feasibility Study Report will be submitted to the MDEQ in January 1995. At this point it is recommended that the ground water sampling frequency be reduced to semiannual and the number of monitoring wells sample also be reduced. A revised sampling plan will be submitted to the MDEQ in late 1995 or early 1996.

TABLES

Table 1: Tetrachloroethene Analytical Results for Ground-Water Samples Collected During Quarterly Sampling Rounds, Livingston Rail Yard, Livingston, Montana.

Chemical Parameter: *Tetrachloroethene* Units: *ug/L*

Monitoring Well	1994 August Quarterly	1994 November Quarterly	1995 February Quarterly	1995 May Annual
1	-	< 0.5 B	-	< 0.5 B
2	-	0.73 B	-	0.6 B
3	-	-	-	< 0.5 B
4	-	-	-	< 0.5 B
5	0.8 B	0.63 B	0.52 B	< 0.5 B
6	-	1.4 B	-	1.2 B
7	-	-	-	9.6 B
8	-	-	-	59.0 B
89-1	-	-	-	8.8 B
89-10	-	-	-	61.0 B
89-2	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
89-3	245.0 B	171.0 B	203.0 B	241.0 B
89-4	42.0 B	121.0 B	139.0 B	< 0.5 B
89-6	-	-	-	16.0 B
89-7	-	-	-	10.0 B
89-9	87.0 B	80.0 B	85.0 B	71.0 B
90-2B	-	-	-	60.0 B
90-3	-	-	-	37.0 B
90-6	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-1	115.0 B	69.0 B	80.0 B	88.0 B
92-2	33.0 B	29.0 B	37.0 B	18.0 B
92-3	0.82 B	0.68 B	0.61 B	< 0.5 B
92-4	1.8 B	3.5 B	32.0 B	34.0 B
94-1	2.2 B	1.8 B	2.5 B	2.5 B
94-2	-	0.65 B	0.57 B	< 0.5 B
B-STREET	-	-	-	5.4 B
HRO-10	-	-	-	< 0.5 B
L-87-2	1.8 B	0.66 B	< 0.5 B	< 0.5 B
L-87-3	74.0 B	92.0 B	92.0 B	88.0 B
L-87-4	-	-	-	< 0.5 B
L-87-5	92.0 B	77.0 B	82.0 B	57.0 B
L-87-7	-	-	-	< 0.5 B
L-87-8	12.0 B	8.4 B	9.1 B	3.7 B
L-88-10	< 0.5 B	44.0 B	56.0 B	44.0 B
L-88-13	-	-	-	19.0 B
L-88-9	-	-	-	< 0.5 B
LS-11	16.0 B	7.1 B	33.0 B	37.0 B
LS-6	-	-	-	< 0.5 B
RAINBOW	-	-	-	11.0 B
VE-50	-	-	-	< 0.5 B

Note: Analyte concentrations are listed with assigned data usability validation codes.
Validation Code Definition: B - Quantitative Quality, A - Qualitative Quality, U - Unusable

Table 2: Trichloroethene Analytical Results for Ground-Water Samples Collected During Quarterly Sampling Rounds, Livingston Rail Yard, Livingston, Montana.

Chemical Parameter: *Trichloroethene* Units: *ug/L*

Monitoring Well	1994 August Quarterly	1994 November Quarterly	1995 February Quarterly	1995 May Annual
1	-	< 0.5 B	-	< 0.5 B
2	-	< 0.5 B	-	< 0.5 B
3	-	-	-	< 0.5 B
4	-	-	-	< 0.5 B
5	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
6	-	< 0.5 B	-	< 0.5 B
7	-	-	-	< 0.5 B
8	-	-	-	3.2 B
89-1	-	-	-	< 0.5 B
89-10	-	-	-	5.1 B
89-2	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
89-3	1.6 B	1.1 B	1.2 B	1.8 B
89-4	2.6 B	1.8 B	1.8 B	1.6 B
89-6	-	-	-	< 0.5 B
89-7	-	-	-	3.4 B
89-9	4.1 B	3.7 B	2.9 B	3.4 B
90-2B	-	-	-	9.6 B
90-3	-	-	-	3.0 B
90-6	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-1	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-2	3.8 B	2.4 B	2.4 B	2.1 B
92-3	3.8 B	< 0.5 B	< 0.5 B	< 0.5 B
92-4	< 0.5 B	1.0 B	2.3 B	1.8 B
94-1	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
94-2	-	< 0.5 B	< 0.5 B	< 0.5 B
B-STREET	-	-	-	< 0.5 B
HRO-10	-	-	-	9.9 B
L-87-2	8.6 B	8.3 B	15.0 B	13.0 B
L-87-3	6.5 B	7.5 B	8.5 B	8.6 B
L-87-4	-	-	-	< 0.5 B
L-87-5	4.9 B	3.4 B	2.5 B	3.2 B
L-87-7	-	-	-	< 0.5 B
L-87-8	5.6 B	4.6 B	19.0 B	1.6 B
L-88-10	< 0.5 B	12.0 B	11.0 B	12.0 B
L-88-13	-	-	-	3.4 B
L-88-9	-	-	-	< 0.5 B
LS-11	11.0 B	7.7 B	7.9 B	6.3 B
LS-6	-	-	-	< 0.5 B
RAINBOW	-	-	-	1.8 B
VE-50	-	-	-	16.0 B

Note: Analyte concentrations are listed with assigned data usability validation codes.
Validation Code Definition: B - Quantitative Quality, A - Qualitative Quality, U - Unusable

Table 3: cis-1,2-Dichloroethene Analytical Results for Ground-Water Samples Collected During Quarterly Sampling Rounds, Livingston Rail Yard, Livingston, Montana.

Chemical Parameter: ***cis-1,2-Dichloroethene*** Units: ***ug/L***

Monitoring Well	1994 August Quarterly	1994 November Quarterly	1995 February Quarterly	1995 May Annual
1	-	< 0.5 B	-	< 0.5 B
2	-	< 0.5 B	-	< 0.5 B
3	-	-	-	< 0.5 B
4	-	-	-	< 0.5 B
5	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
6	-	< 0.5 B	-	< 0.5 B
7	-	-	-	< 0.5 B
8	-	-	-	3.0 B
89-1	-	-	-	< 0.5 B
89-10	-	-	-	11.0 B
89-2	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
89-3	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
89-4	0.73 B	0.53 B	< 0.5 B	0.7 B
89-6	-	-	-	< 0.5 B
89-7	-	-	-	< 0.5 B
89-9	1.1 B	0.99 B	0.5 B	1.0 B
90-2B	-	-	-	23.0 B
90-3	-	-	-	5.1 B
90-6	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-1	< 0.5 B	< 0.5 B	< 0.5 B	1.1 B
92-2	6.4 B	2.6 B	3.0 B	3.6 B
92-3	6.4 B	< 0.5 B	< 0.5 B	< 0.5 B
92-4	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
94-1	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
94-2	-	< 0.5 B	< 0.5 B	< 0.5 B
B-STREET	-	-	-	< 0.5 B
HRO-10	-	-	-	23.0 B
L-87-2	96.0 B	138.0 B	75.0 B	34.0 B
L-87-3	8.3 B	8.9 B	16.0 B	17.0 B
L-87-4	-	-	-	< 0.5 B
L-87-5	1.2 B	1.1 B	< 0.5 B	1.0 B
L-87-7	-	-	-	< 0.5 B
L-87-8	1.6 B	1.2 B	3.2 B	< 0.5 B
L-88-10	< 0.5 B	52.0 B	36.0 B	37.0 B
L-88-13	-	-	-	1.5 B
L-88-9	-	-	-	< 0.5 B
LS-11	22.0 B	17.0 B	15.0 B	12.0 B
LS-6	-	-	-	< 0.5 B
RAINBOW	-	-	-	2.3 B
VE-50	-	-	-	47.0 B

Note: Analyte concentrations are listed with assigned data usability validation codes.
Validation Code Definition: B - Quantitative Quality, A - Qualitative Quality, U - Unusable

Table 4: Chlorobenzene Analytical Results for Ground-Water Samples Collected During Quarterly Sampling Rounds, Livingston Rail Yard, Livingston, Montana.

Chemical Parameter: ***Chlorobenzene*** Units: ***ug/L***

Monitoring Well	1994 August Quarterly	1994 November Quarterly	1995 February Quarterly	1995 May Annual
1	-	< 0.5 B	-	< 0.5 B
2	-	< 0.5 B	-	< 0.5 B
3	-	-	-	< 0.5 B
4	-	-	-	< 0.5 B
5	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
6	-	< 0.5 B	-	< 0.5 B
7	-	-	-	< 0.5 B
8	-	-	-	< 0.5 B
89-1	-	-	-	< 0.5 B
89-10	-	-	-	< 0.5 B
89-2	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
89-3	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
89-4	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
89-6	-	-	-	< 0.5 B
89-7	-	-	-	< 0.5 B
89-9	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
90-2B	-	-	-	< 0.5 B
90-3	-	-	-	< 0.5 B
90-6	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-1	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-2	< 0.5 B	0.84 B	< 0.5 B	< 0.5 B
92-3	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-4	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
94-1	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
94-2	-	< 0.5 B	< 0.5 B	< 0.5 B
B-STREET	-	-	-	< 0.5 B
HRO-10	-	-	-	13.0 B
L-87-2	54.0 B	56.0 B	42.0 B	26.0 B
L-87-3	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
L-87-4	-	-	-	< 0.5 B
L-87-5	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
L-87-7	-	-	-	< 0.5 B
L-87-8	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
L-88-10	< 0.5 B	10.0 B	9.3 B	6.9 B
L-88-13	-	-	-	< 0.5 B
L-88-9	-	-	-	< 0.5 B
LS-11	85.0 B	73.0 B	19.0 B	< 0.5 B
LS-6	-	-	-	< 0.5 B
RAINBOW	-	-	-	< 0.5 B
VE-50	-	-	-	36.0 B

Note: Analyte concentrations are listed with assigned data usability validation codes.
Validation Code Definition: B - Quantitative Quality, A - Qualitative Quality, U - Unusable

Table 5.0

Apparent Free Product Thickness Measurements
1995 Annual Ground Water Report
Livingston Rail Yard, Livingston, Montana

Well	Aug-94	Nov-94	Feb-95	May-95
LS-7	0.09	Well abandoned in 12/94		
LB-4	0.48	0.81	0.12	0.45
L-87-2	ND	ND	ND	ND
L-87-4	0.11		ND	ND
L-87-7	0.3	0.68	0.78	0.24
L-87-8	0.43	0.15	1.35	0.12
HRO-6	0.25	0.56	0.63	0.36
HRO-8		0.21		
HRO-9	0.02		0.06	
HRO-10		ND	<0.01	
HRO-11		0.11		0.23
HRO-12	ND	ND	<0.01	ND
HRO-13	ND	ND	ND	ND
HRO-14		ND	ND	<0.01
HRO-15	0.06	0.07	0.07	<0.01
HRO-16	ND	0.09	0.5	0.04
HRO-20	ND	<0.01	0.13	ND
HRO-21	ND	<0.01	<0.01	ND
HRO-22	<0.01	<0.01	ND	<0.01
HRO-23	<0.01	<0.01	ND	ND
HRO-24	ND	0.08	0.14	0.01
RW-1		<0.01	ND	0.01
RW-2		<0.01	ND	<0.01
RW-3		0.04	0.03	<0.01
RW-4		0.16	ND	0.16
RW-5		0.09	0.07	0.24
RW-6		1.07	0.14*	0.22*
RW-7	0.04	0.02	0.4	0.04
RW-8	<0.01	0.01	0.02	0.03
RW-9	ND	ND	ND	ND
LPZ-100		0.09	0.04	

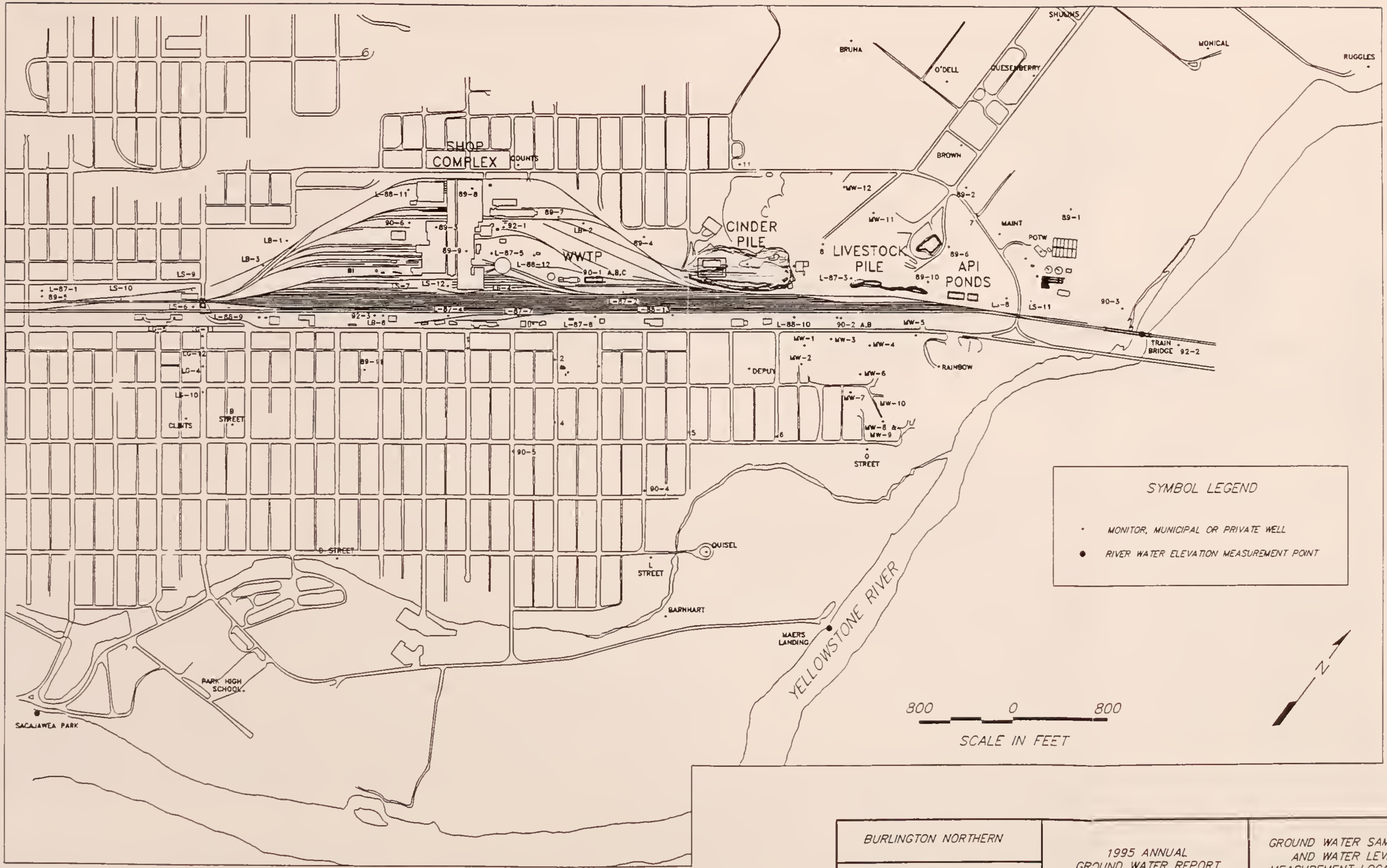
Notes:

ND - no product detected

<0.01 - trace of product detected but less than resolution of product probe

* - Approximately 35 gallons of product recovered from Well RW-6 during December 1994.

FIGURES



BURLINGTON NORTHERN

ENVIROCON, INC.

1995 ANNUAL
GROUND WATER REPORT

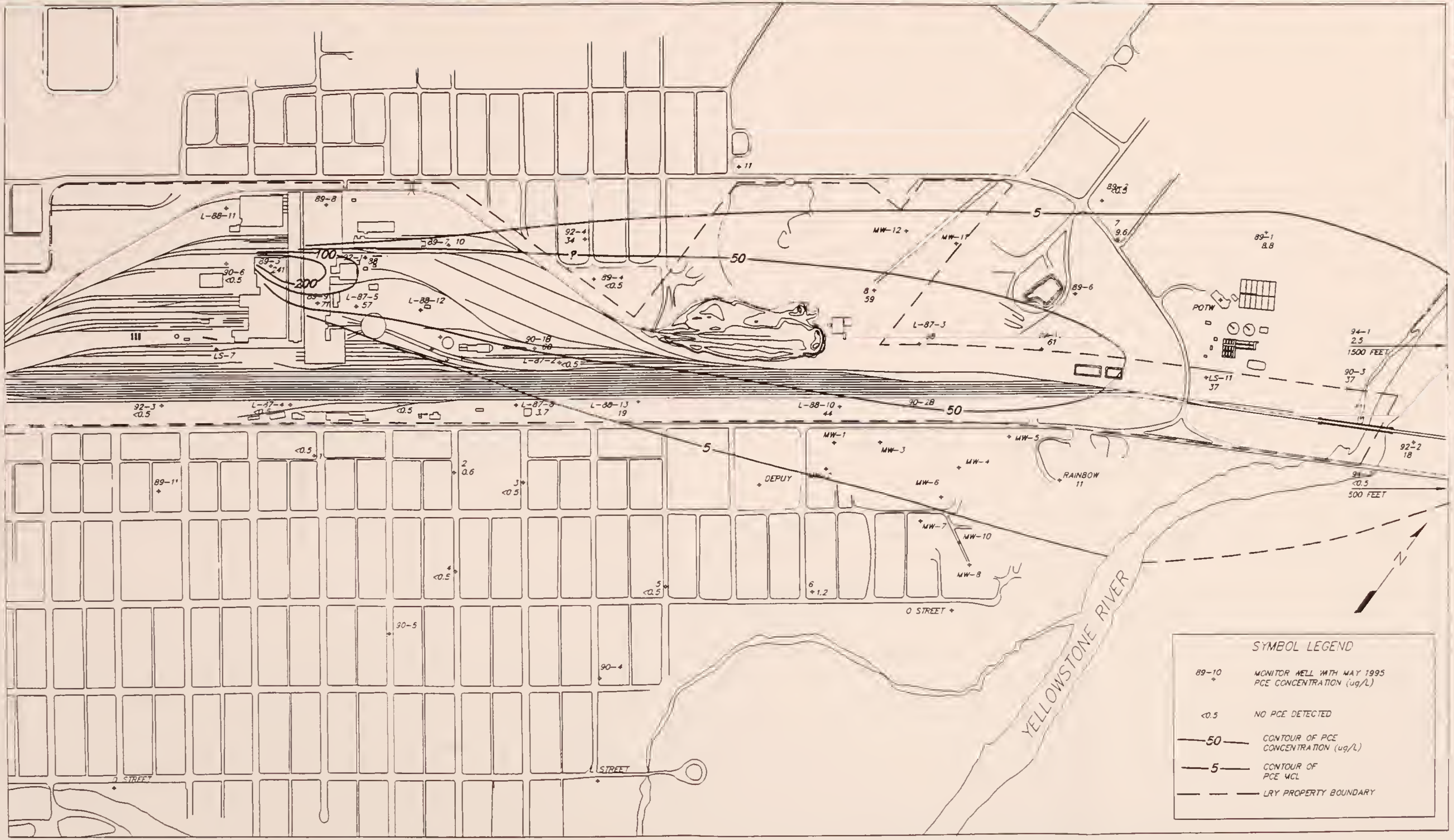
140101

GROUND WATER SAMPLING
AND WATER LEVEL
MEASUREMENT LOCATIONS

10/31/95

FIGURE 1.0

FILE GWR-001.dwg

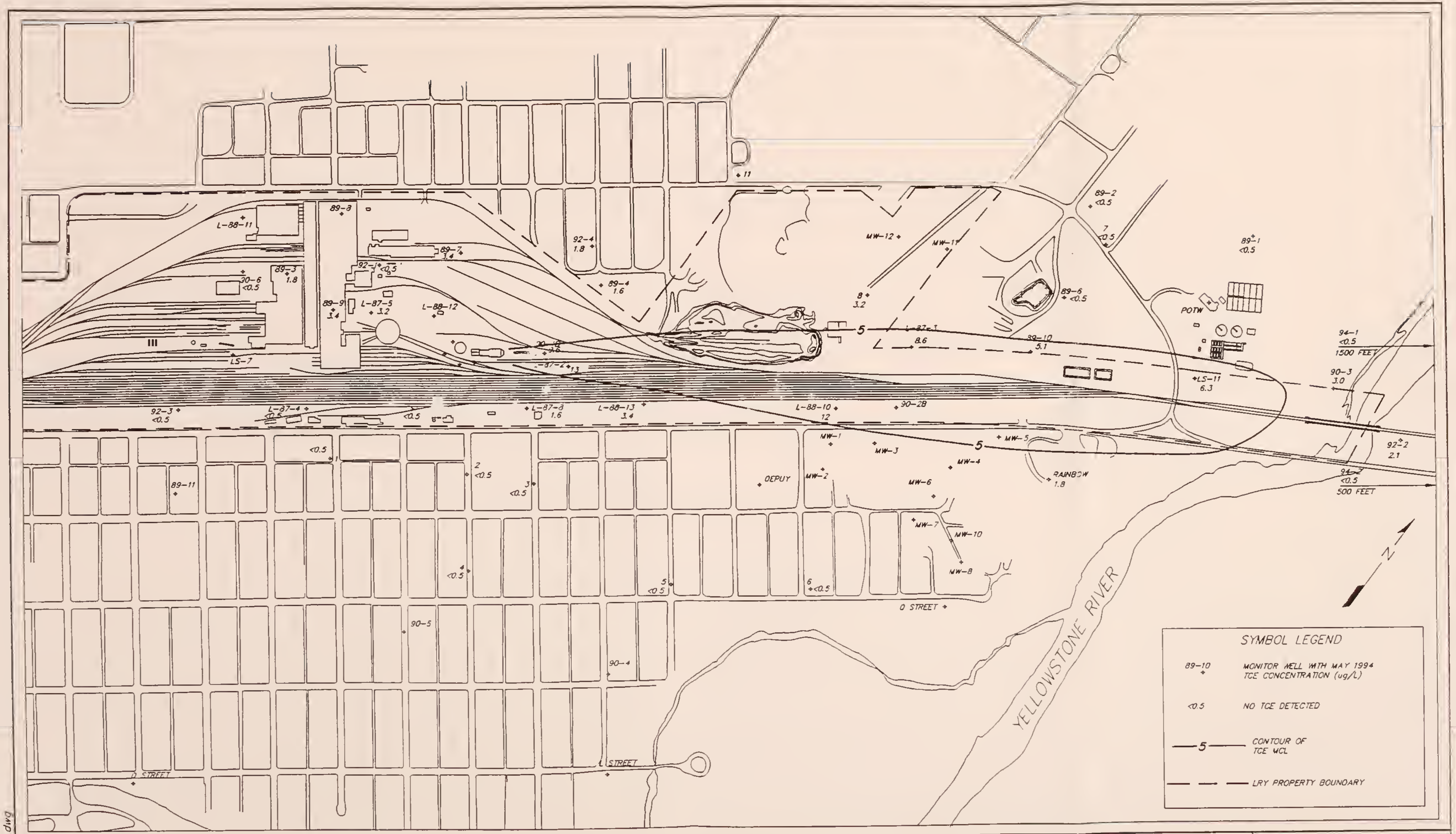


500 0 500

SCALE IN FEET

FILE LIVCC-01.dwg

BURLINGTON NORTHERN	1995 ANNUAL GROUND WATER REPORT	MAY 1995 PCE CONCENTRATIONS
ENVIROCON, INC.	140101	10/22/95
		FIGURE 2.0



BURLINGTON NORTHERN

ENVIROCON, INC.

1995 ANNUAL
GROUND WATER REPORT

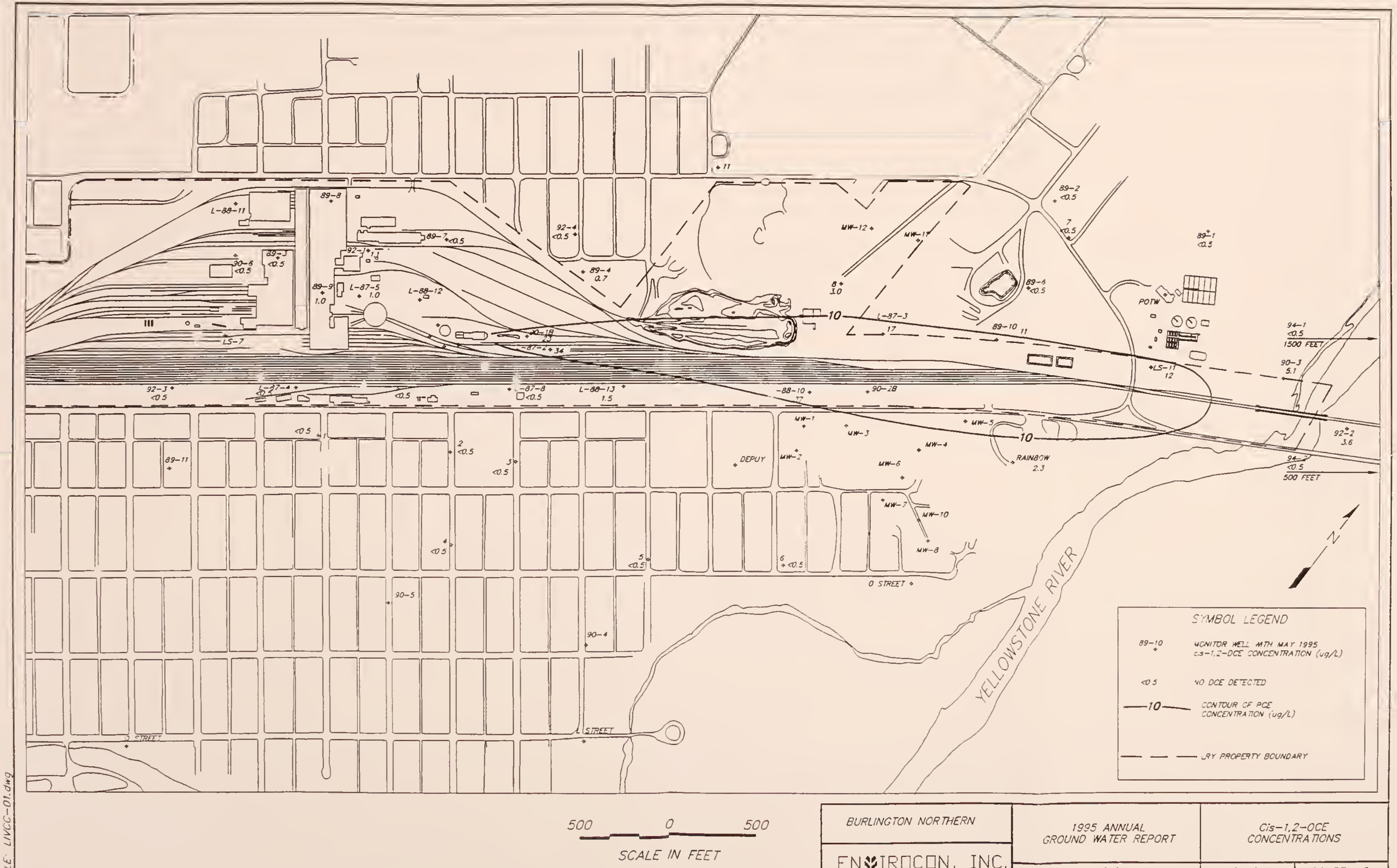
140101

MAY 1995 TCE
CONCENTRATIONS

10/22/95

FIGURE 3.0

FILE: LIVCC-01.dwg



BURLINGTON NORTHERN

ENVIROCON, INC.

1995 ANNUAL
GROUND WATER REPORT

Cis-1,2-OCE
CONCENTRATIONS

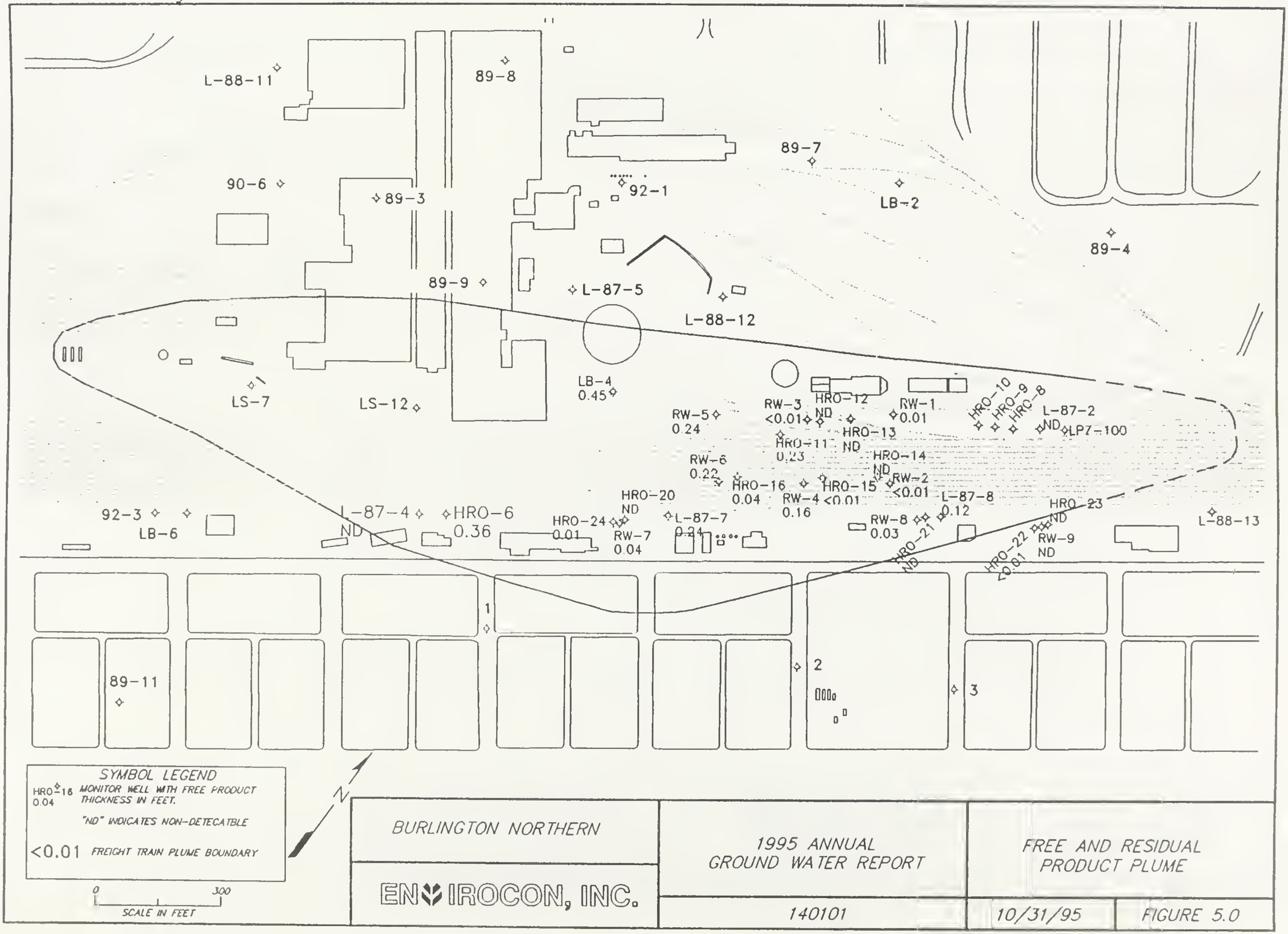
140101

10/22/95

FIGURE 4.0

FILE: LIVCC-01.dwg

FILE: GWR-081 dwg



SYMBOL LEGEND

HRO-16 0.04 MONITOR WELL WITH FREE PRODUCT THICKNESS IN FEET.

"ND" INDICATES NON-DETECATBLE

<0.01 FREIGHT TRAIN PLUME BOUNDARY

BURLINGTON NORTHERN

ENVIROCON, INC.

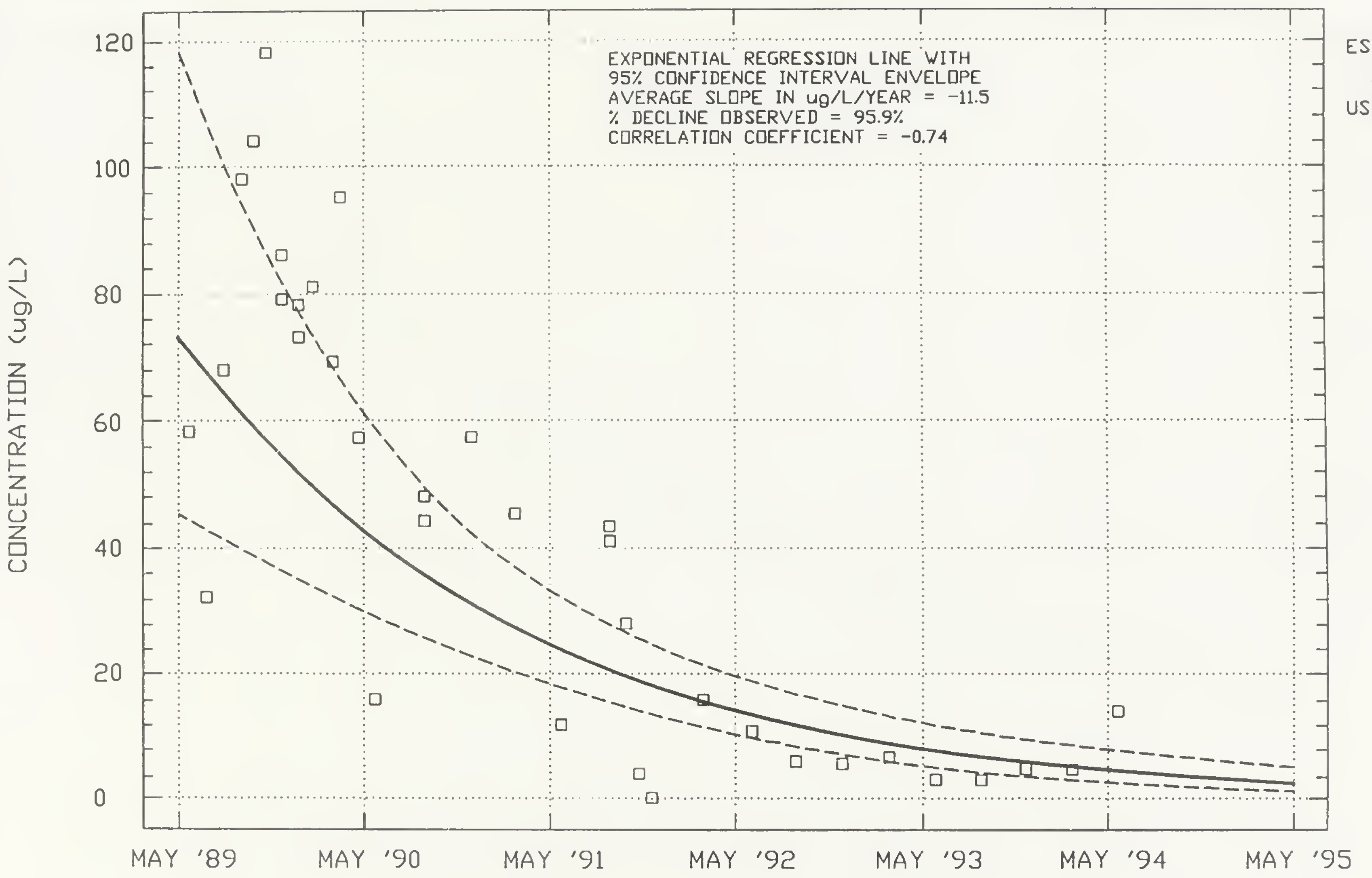
1995 ANNUAL
GROUND WATER REPORT

140101

FREE AND RESIDUAL
PRODUCT PLUME

10/31/95

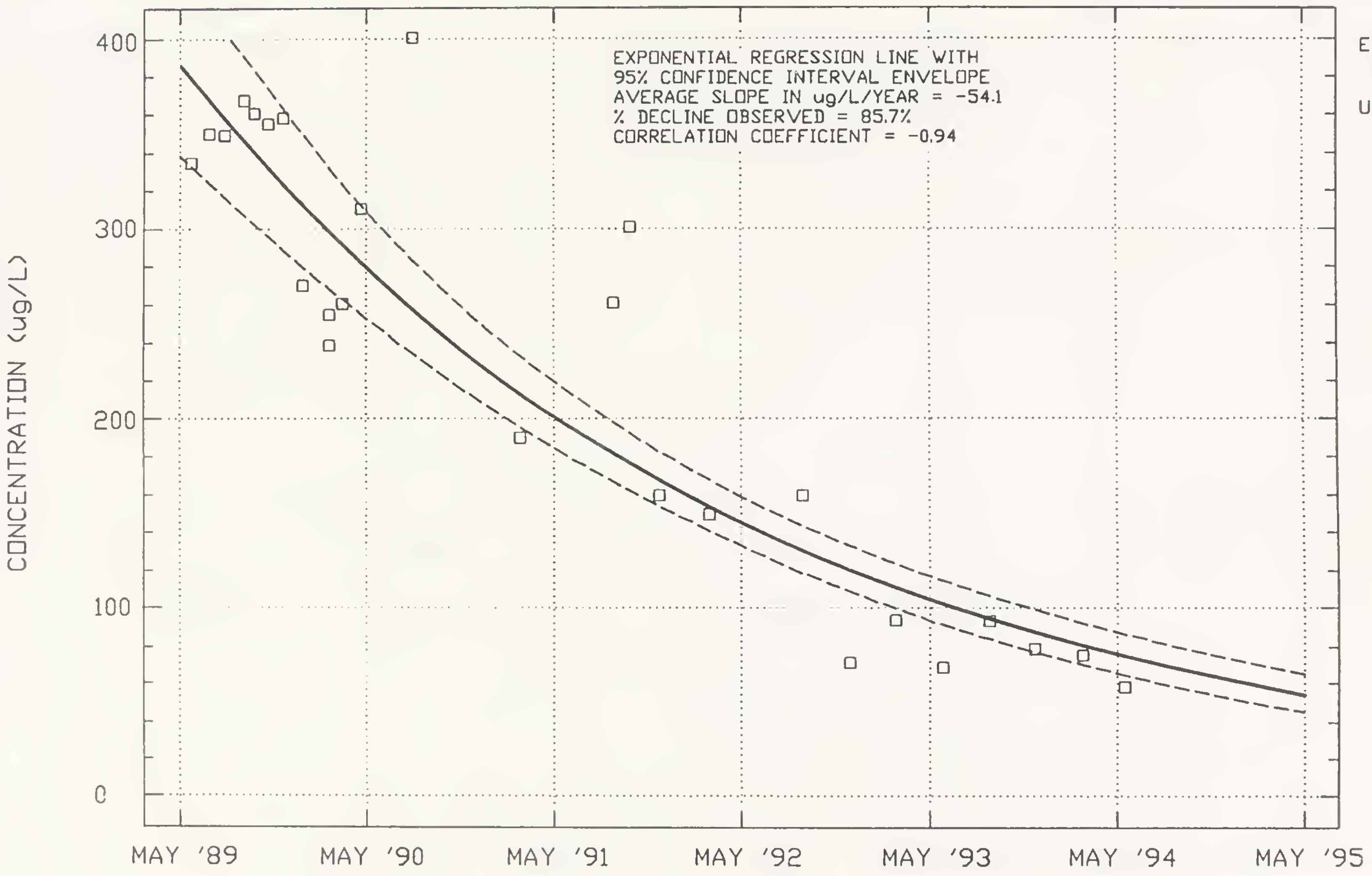
FIGURE 5.0



ESTIMATED TIME FRAME
FOR COMPLIANCE
WITH MCL LEVELS
USING 95% CONFIDENCE
INTERVAL

BETWEEN YEARS
1993 - 1994

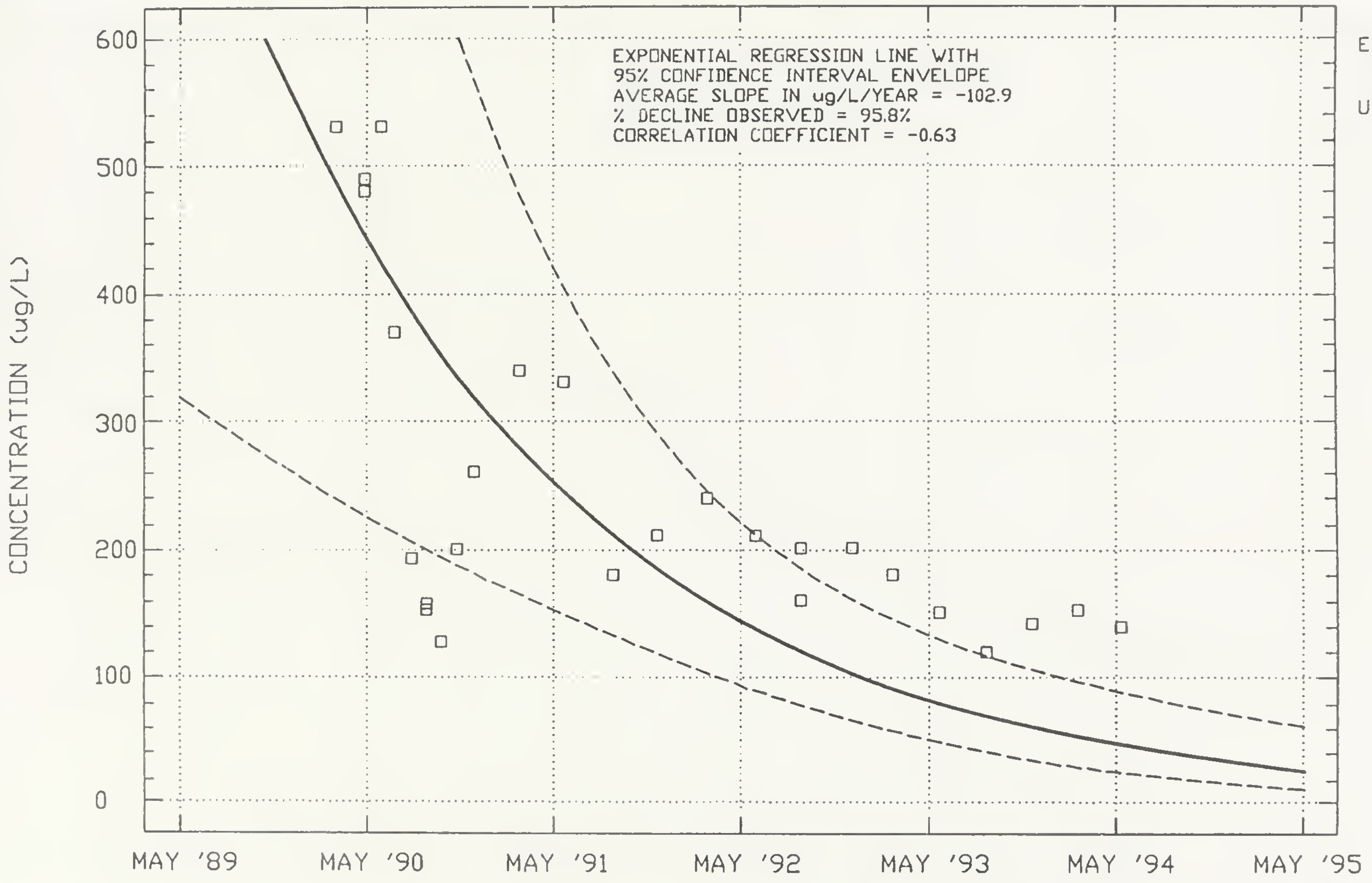
BURLINGTON NORTHERN ENVIROCON, INC.	FEASIBILITY STUDY REPORT LIVINGSTON RAIL YARD LIVINGSTON, MONTANA	TETRACHLOROETHENE CONCENTRATIONS FOR WELL L-87-8
	AutoCad FILE: PCEL878.DWG	11/3/95 FIGURE 6.0



ESTIMATED TIME FRAME
FOR COMPLIANCE
WITH MCL LEVELS
USING 95% CONFIDENCE
INTERVAL

BETWEEN YEARS
2002 - 2003

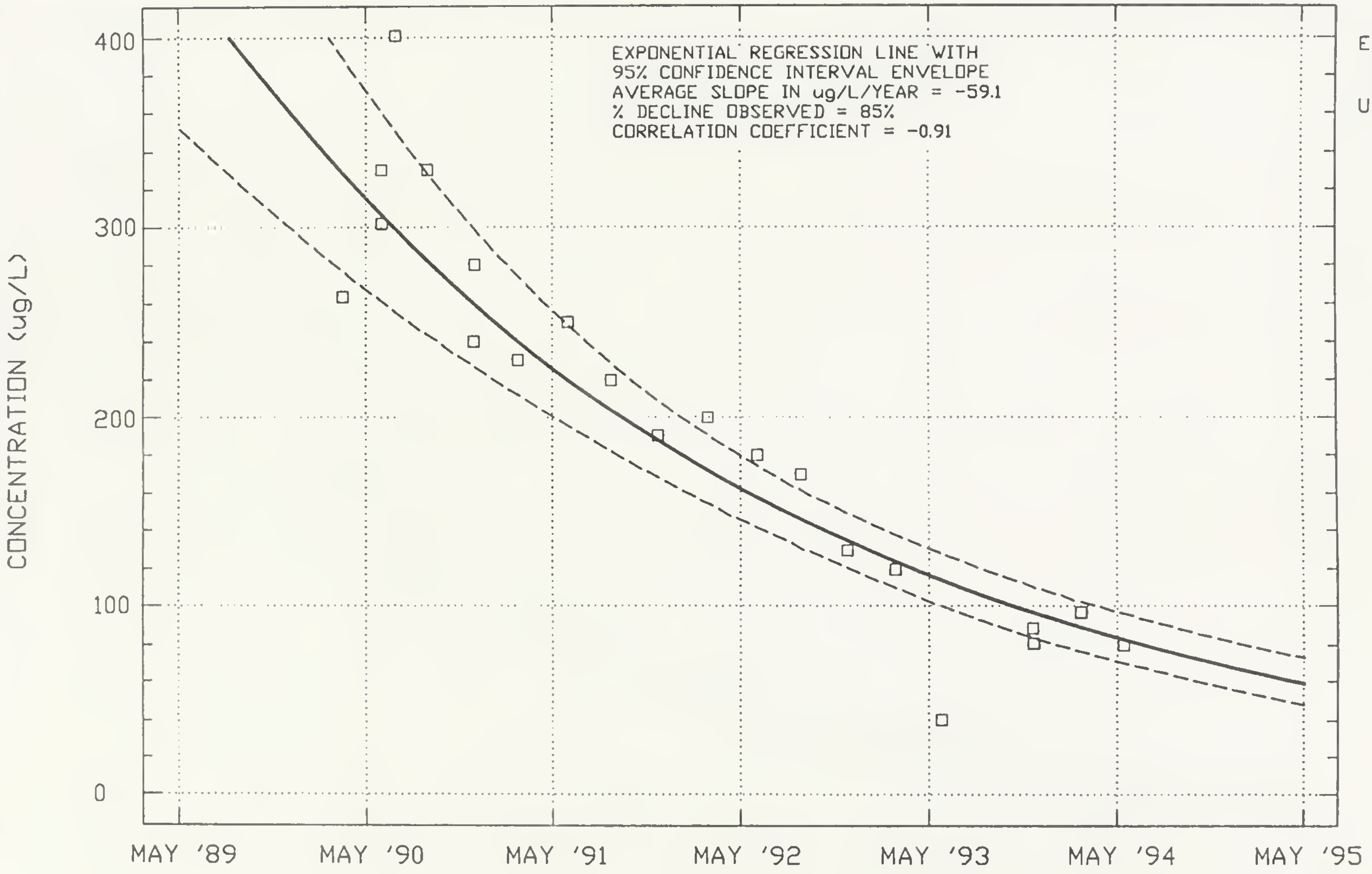
BURLINGTON NORTHERN	FEASIBILITY STUDY REPORT LIVINGSTON RAIL YARD LIVINGSTON, MONTANA	TETRACHLOROETHENE CONCENTRATIONS FOR WELL L-87-5
ENVIROCON, INC.	AutoCad FILE: PCEL875.DWG	11/3/95
		FIGURE 7.0



ESTIMATED TIME FRAME
FOR COMPLIANCE
WITH MCL LEVELS
USING 95% CONFIDENCE
INTERVAL

BETWEEN YEARS
1998 - 1999

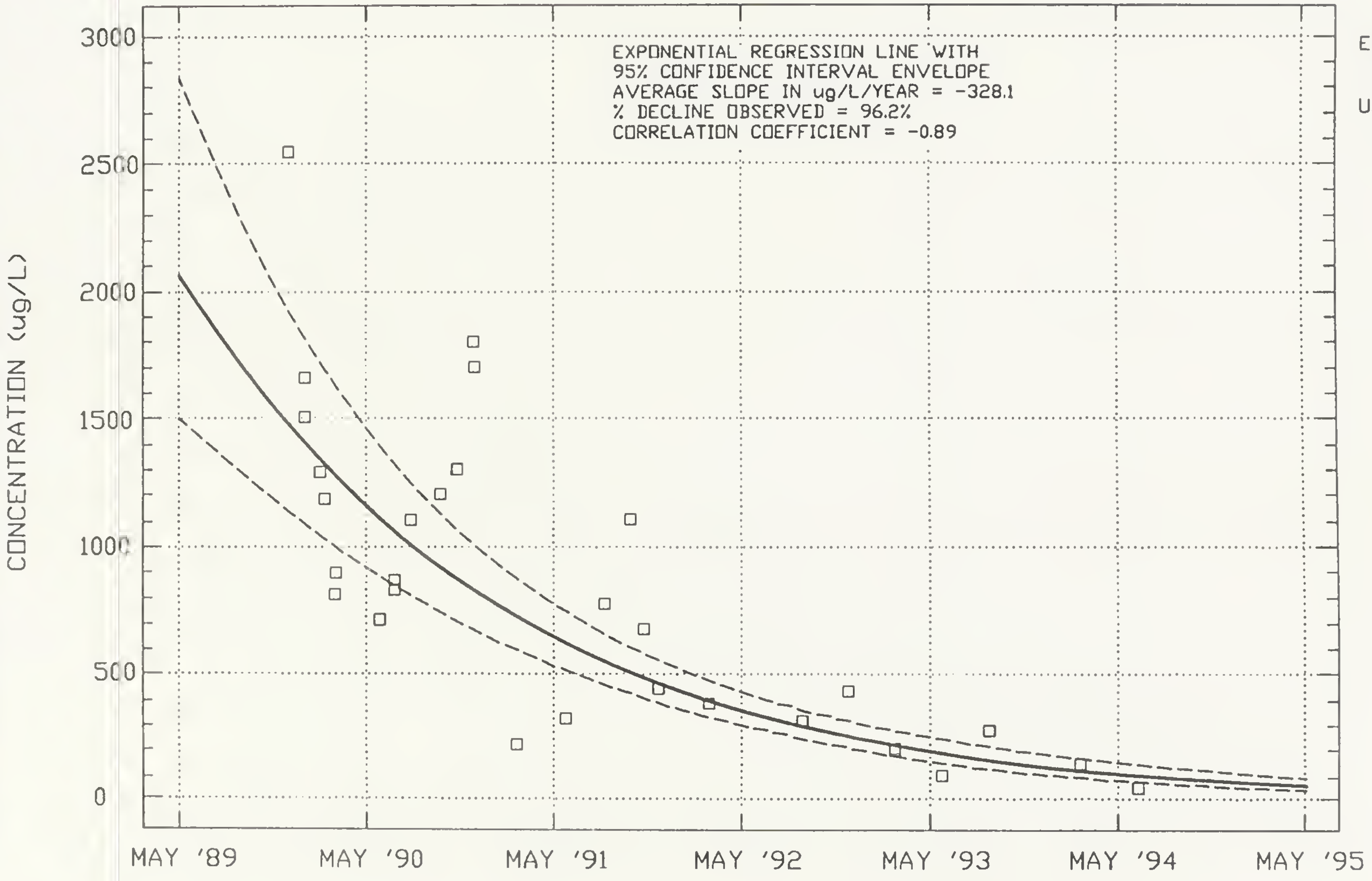
BURLINGTON NORTHERN ENVIROCON, INC.	FEASIBILITY STUDY REPORT LIVINGSTON RAIL YARD LIVINGSTON, MONTANA	TETRACHLOROETHENE CONCENTRATIONS FOR WELL 89-4	
	AutoCad FILE: PCE894.DWG	11/3/95	FIGURE 8.0



ESTIMATED TIME FRAME
FOR COMPLIANCE
WITH MCL LEVELS
USING 95% CONFIDENCE
INTERVAL

BETWEEN YEARS
2002 - 2003

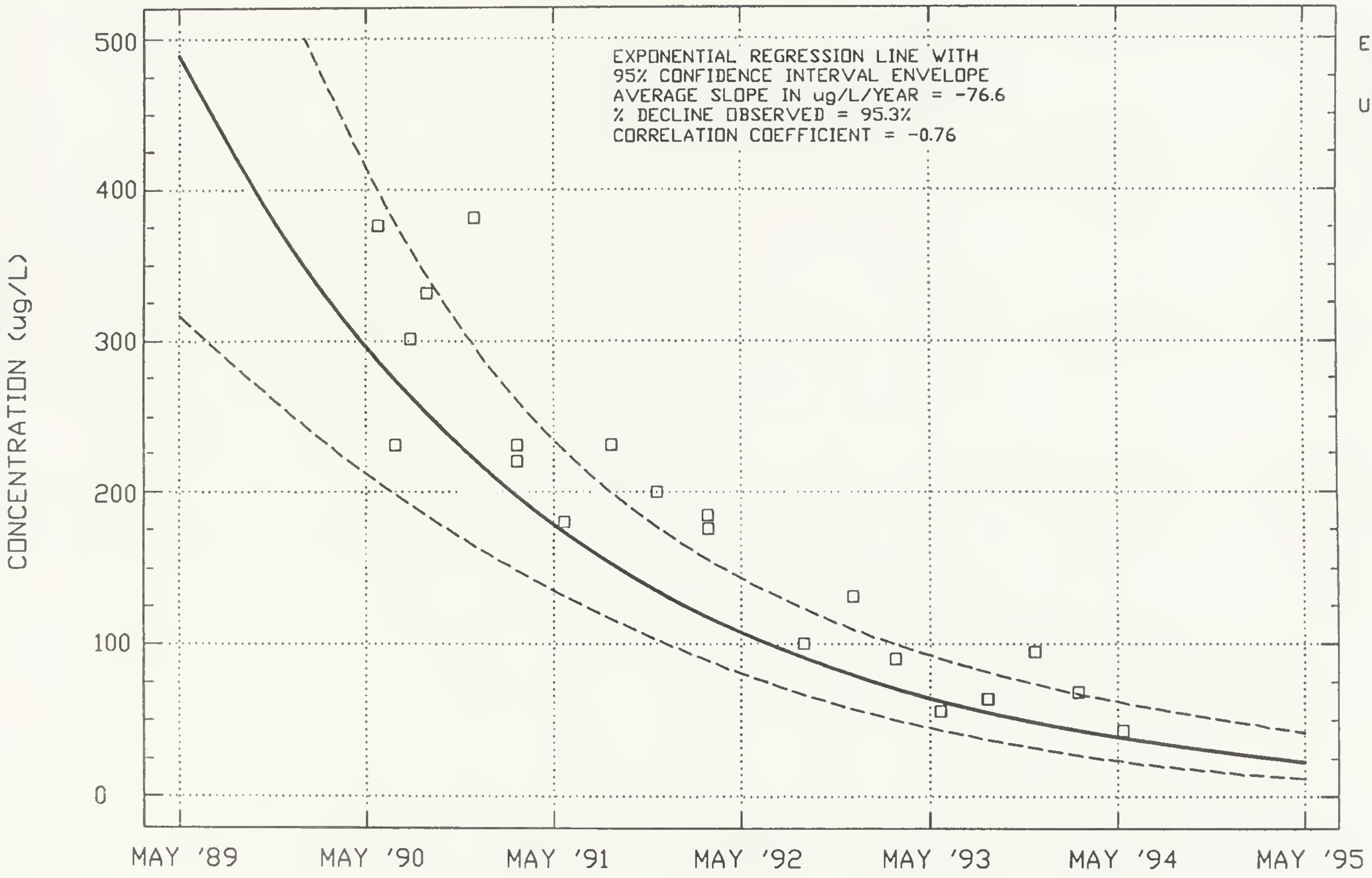
BURLINGTON NORTHERN ENVIROCON, INC.	FEASIBILITY STUDY REPORT LIVINGSTON RAIL YARD LIVINGSTON, MONTANA	TETRACHLOROETHENE CONCENTRATIONS FOR WELL 89-9
	AutoCad FILE: PCE899.DWG	11/3/95
		FIGURE 9.0



ESTIMATED TIME FRAME
FOR COMPLIANCE
WITH MCL LEVELS
USING 95% CONFIDENCE
INTERVAL

BETWEEN YEARS
1998 - 1999

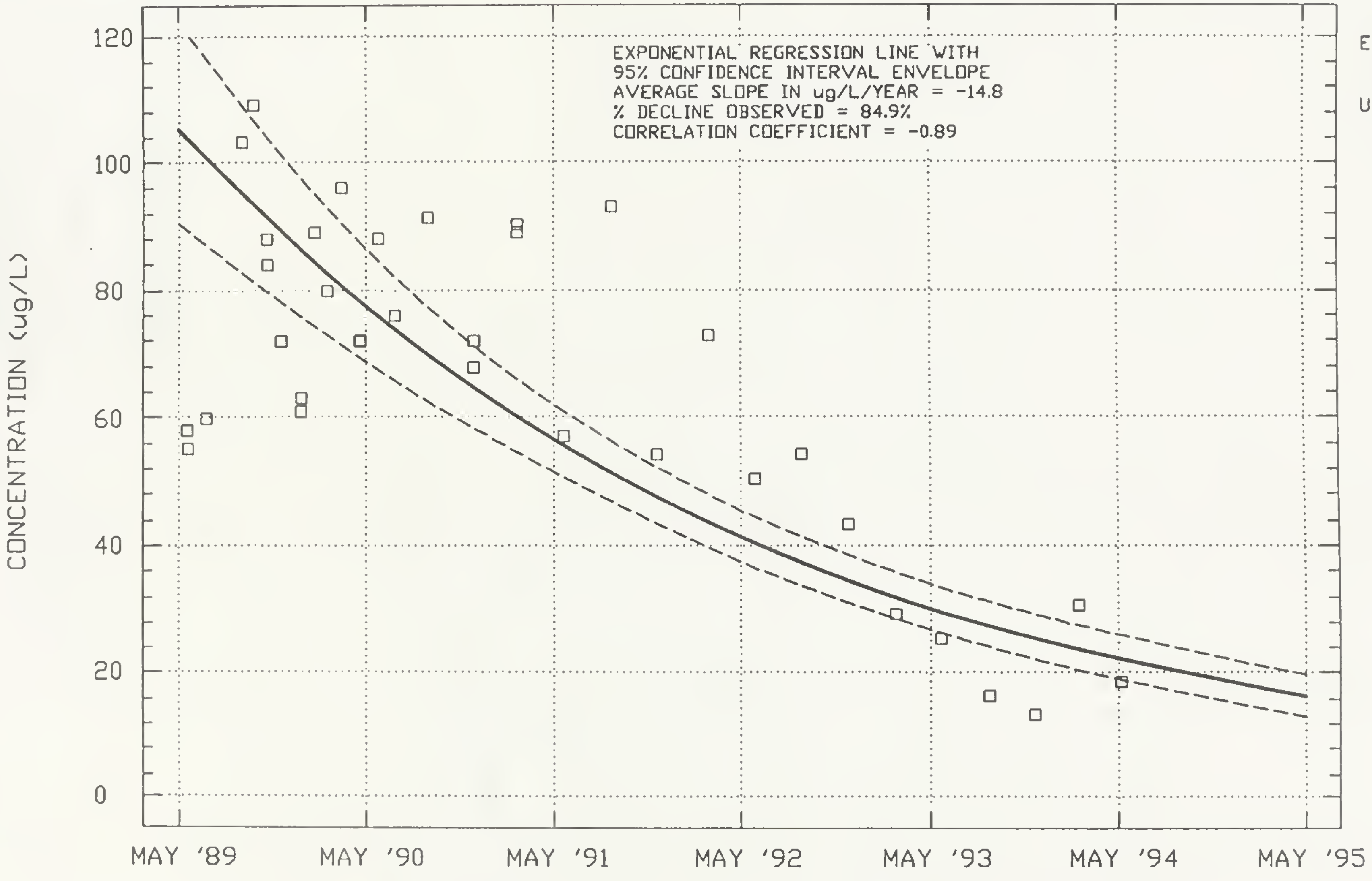
BURLINGTON NORTHERN	FEASIBILITY STUDY REPORT LIVINGSTON RAIL YARD LIVINGSTON, MONTANA	cis-1,2 DICHLOROETHENE CONCENTRATIONS FOR WELL L-87-2
ENVIROCON, INC.	AutoCad FILE: DCEL872.DWG	11/3/95
		FIGURE 10.0



ESTIMATED TIME FRAME
FOR COMPLIANCE
WITH MCL LEVELS
USING 95% CONFIDENCE
INTERVAL

BETWEEN YEARS
1997 - 1998

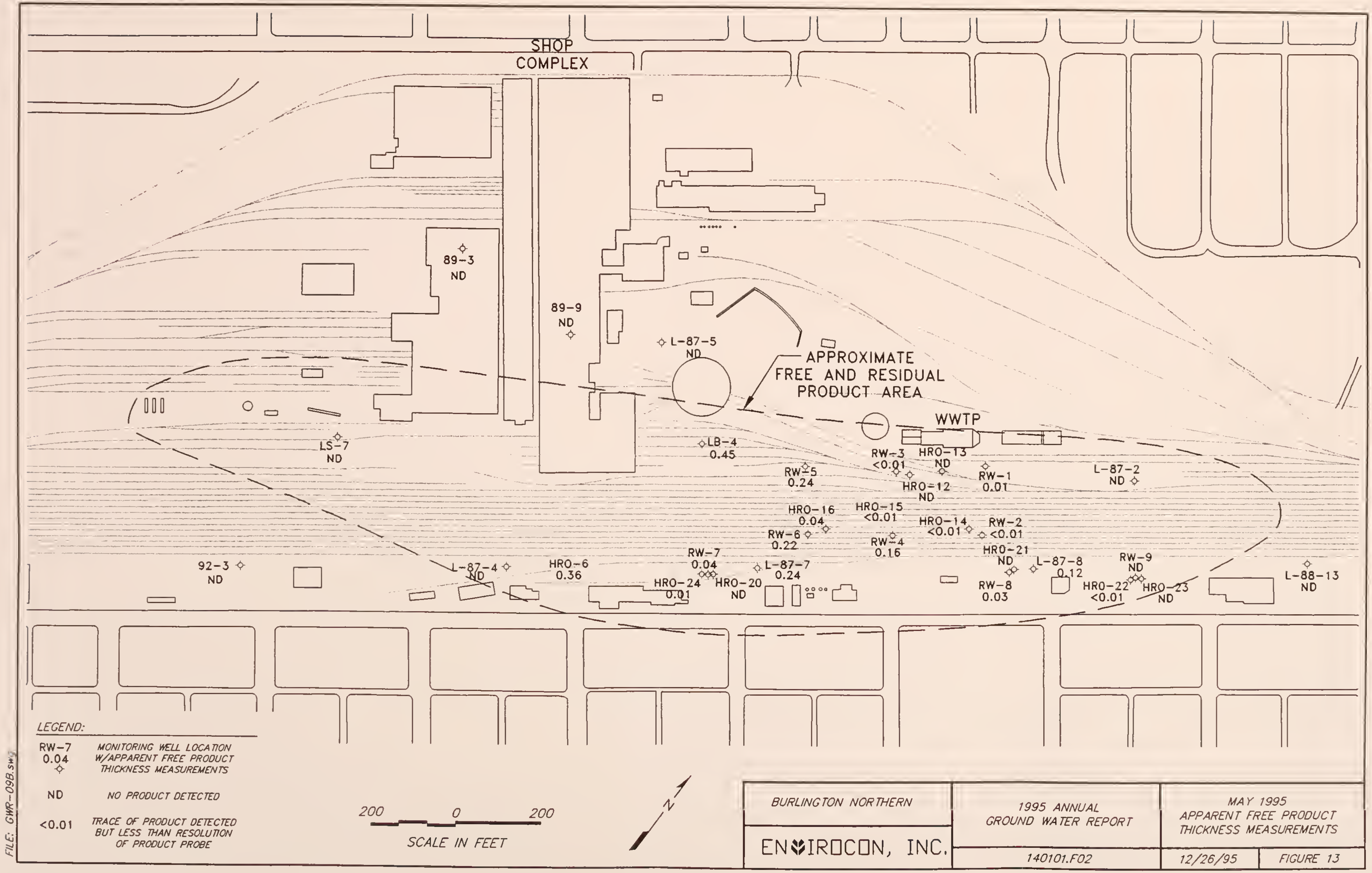
BURLINGTON NORTHERN	FEASIBILITY STUDY REPORT LIVINGSTON RAIL YARD LIVINGSTON, MONTANA	cis-1,2 DICHLOROETHENE CONCENTRATIONS FOR WELL L-88-10
ENVIROCON, INC.	AutoCad FILE: DCEL8810.DWG	11/3/95
		FIGURE 11.0



ESTIMATED TIME FRAME
FOR COMPLIANCE
WITH MCL LEVELS
USING 95% CONFIDENCE
INTERVAL

BETWEEN YEARS
1997 - 1998

BURLINGTON NORTHERN	*FEASIBILITY STUDY REPORT* *LIVINGSTON RAIL YARD* *LIVINGSTON, MONTANA*	*cis-1,2 DICHLOROETHENE* *CONCENTRATIONS* *FOR WELL LS-11*
ENVIROCON, INC.	*AutoCad FILE: DCELS11.DWG*	*11/3/95* — *FIGURE 12.0*



LEGEND:

RW-7 0.04 ⌖	MONITORING WELL LOCATION W/APPARENT FREE PRODUCT THICKNESS MEASUREMENTS
ND	NO PRODUCT DETECTED
<0.01	TRACE OF PRODUCT DETECTED BUT LESS THAN RESOLUTION OF PRODUCT PROBE

BURLINGTON NORTHERN	1995 ANNUAL GROUND WATER REPORT	MAY 1995 APPARENT FREE PRODUCT THICKNESS MEASUREMENTS
ENVIROCON, INC.	140101.F02	12/26/95 — FIGURE 13

APPENDIX A

LABORATORY ANALYTICAL RESULTS

ENVIROCON, INC.

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

RECEIVED JUN 30 1995

June 29, 1995

Mike McKinsey
Envirocon, Inc.
P.O. Box 8243
Missoula, MT 59807

Dear Mike:

On June 3, 1995, these samples, represented by our laboratory numbers 95-34088 through 95-34095, were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by:

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 01-JUN-95 17:20
Date Received: 03-JUN-95
Analysis Date: 15-JUN-1995 12:47
File: /chem/5971A.i/va061595.b/jun150501005.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1442 92-2

Lab No.: 95-34088
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**3.6**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**18**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.1**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.40	94	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 5-times dilution.

REPORT COMMENTS: None

Analyst: CNH Reviewing Supervisor: wm.

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.

P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 01-JUN-95 17:20
Date Received: 03-JUN-95
Analysis Date: 15-JUN-1995 15:15
File: /chem/5971A.i/va061595.b/jun150901009.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1443 92-2 Duplicate

Lab No.: 95-34089
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**3.2**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**17**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.9**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.70	97	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 5-times dilution.

REPORT COMMENTS: None

Analyst: CH Reviewing Supervisor: WTB

ENERGY LABORATORIES
ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 01-JUN-95 17:30
Date Received: 03-JUN-95
Analysis Date: 15-JUN-1995 16:33
File: /chem/5971A.i/va061595.b/jun151101011.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1444 Equip. Blank

Lab No.: 95-34090
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	**75-27-4**	**<0.50**	**0.30J**
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**6.3**	
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.3	103	80--120
Toluene d8	10.0	10.7	107	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

ENERGY LABORATORIES
ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 01-JUN-95 17:30
Date Received: 03-JUN-95
Analysis Date: 16-JUN-1995 16:49
File: /chem/5971A.i/va061695.b/jun161101011.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1444 Equip. Blank Lab Dup.

Lab No.: 95-34090 duplicate
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	**106-46-7**	**<0.50**	**0.10J**
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	**75-27-4**	**<0.50**	**0.34J**
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**7.5**	
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.37	94	80--120
Toluene d8	10.0	10.4	104	80--120
p-Bromofluorobenzene	10.0	10.7	107	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 01-JUN-95 18:50
Date Received: 03-JUN-95
Analysis Date: 15-JUN-1995 14:01
File: /chem/5971A.i/va061595.b/jun150701007.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1445 L-87-5

Lab No.: 95-34091
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.0**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**57**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.2**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

D= Value derived from a 5-times dilution.

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor: WM

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Client: Envirocon, Inc.
Date Sampled: 02-JUN-95 11:20
Date Received: 03-JUN-95
Analysis Date: 16-JUN-1995 10:39
File: /chem/5971A.i/va061695.b/jun160101001.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1447 90-3

Lab No.: 95-34092
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**5.1**	
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	0.10J
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**37**	D
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.0**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.76	88	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	10.9	109	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 5-times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 02-JUN-95 11:20
Date Received: 03-JUN-95
Analysis Date: 16-JUN-1995 13:35
File: /chem/5971A.i/va061695.b/jun160601006.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1448 90-3 Duplicate

Lab No.: 95-34093
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**4.4**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**31**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.8**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.82	88	80--120
Toluene d8	10.0	11.0	110	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 5-times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 02-JUN-95 13:30
Date Received: 03-JUN-95
Analysis Date: 16-JUN-1995 14:12
File: /chem/5971A.i/va061695.b/jun160701007.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1449 89-9

Lab No.: 95-34094
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.0**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**71**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.4**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.34	93	80--120
Toluene d8	10.0	9.96	100	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10-times dilution.

REPORT COMMENTS: None

Analyst: CDH Reviewing Supervisor: WTO

EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 20-JUN-1995 00:57
Lab No.: 95-34091
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc061995.b/9534091s.d
Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	25.0	<0.50	24.5	98	60--140
1,1-Dichloroethene	25.0	<0.50	24.8	99	60--140
Tetrachloroethene	25.0	57	79.8	91	60--140
Trichloroethene	25.0	3.2	27.6	98	60--140

REPORT COMMENTS: None

Analyst: CLH Reviewing Supervisor: WB

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                    EPA METHOD 624 BLANK SPIKE REPORT
                    =====================================
Quality Control Sample: Certified Reference Sample Analysis 16-JUN-95 09:11
Report Date: 06/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va061695.b/jun153801038a.d
Remarks: This certified reference sample was spiked into a blank sample matrix then
extracted and analyzed with your set of samples to determine if the methodology is
in control and to monitor the laboratory's ability to produce accurate results.
                                  CONCENTRATION UNITS = ug/L (ppb)
    Spike Compound                Added     Measured  %Rec   QC Limits
    ==================            =====     ========  =====  =========
    Carbon tetrachloride          5.00        4.26     85     60--140
    Chlorobenzene                 5.00        5.28    106     60--140
    1,4-Dichlorobenzene           5.00        4.63     93     60--140
    1,2-Dichloroethane            5.00        3.90     78     60--140
    1,1-Dichloroethene            5.00        3.92     78     60--140
    trans-1,2-Dichloroethene      5.00        4.11     82     60--140
    1,2-Dichloropropane           5.00        4.34     87     60--140
    Ethyl benzene                 5.00        5.70    114     60--140
    Tetrachloroethene             5.00        4.55     91     60--140
    1,1,2-Trichloroethane         5.00        4.34     87     60--140
    1,3-Dichlorobenzene           5.00        4.78     96     60--140
    ----------------- SURROGATE RECOVERY REPORT -----------------
    Surrogate Compound        Added ug/L   Measured ug/L    %Rec   QC Limits
    ==================        ============ ===============  ====   =========
    1,2-Dichloroethane d4        10.0           9.19          92    80--120
    Toluene d8                   10.0           10.3         103    80--120
    p-Bromofluorobenzene         10.0           10.9         109    80--120


REPORT COMMENTS:  None

Analyst:_______   Reviewing Supervisor:_________
```

Quality Control Sample: Laboratory Reagent Blank 15-JUN-1995 12:10
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va061595.b/jun150401004.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.74	97	80--120
Toluene d8	10.0	10.8	108	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Quality Control Sample: Laboratory Reagent Blank 16-JUN-95 09:47
Report Date: 06/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va061695.b/jun153901039a.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	11.1	111	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Client: Envirocon, Inc.
Date Sampled: 02-JUN-95 10:27
Date Received: 03-JUN-95
Analysis Date: 15-JUN-1995 11:33
File: /chem/5971A.i/va061595.b/jun150301003.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1446 LS-11

Lab No.: 95-34095
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
----------REGULATED VOLATILE ORGANIC CHEMICALS (VOC'S)----------				
Benzene	71-43-2	5	<0.50	U
Carbon tetrachloride	56-23-5	5	<0.50	U
Chlorobenzene	**108-90-7**	**100**	**<0.50**	**0.29J**
1,2-Dichlorobenzene	95-50-1	600	<0.50	U
1,4-Dichlorobenzene	**106-46-7**	**75**	**<0.50**	**0.29J**
1,2-Dichloroethane	107-06-2	5	<0.50	U
1,1-Dichloroethene	75-35-4	7	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**70**	**12**	
trans-1,2-Dichloroethene	**156-60-5**	**100**	**<0.50**	**0.16J**
1,2-Dichloropropane	78-87-5	5	<0.50	U
Ethyl benzene	100-41-4	700	<0.50	U
Methylene chloride	75-09-2	5	<0.50	U
Styrene	100-42-5	100	<0.50	U
Tetrachloroethene	**127-18-4**	**5**	**37**	**D**
Toluene	108-88-3	1000	<0.50	U
1,2,4-Trichlorobenzene	120-82-1	70	<0.50	U
1,1,1-Trichloroethane	71-55-6	200	<0.50	U
1,1,2-Trichloroethane	79-00-5	5	<0.50	U
Trichloroethene	**79-01-6**	**5**	**6.3**	
Vinyl chloride	75-01-4	2	<0.50	U
m+p-Xylenes	108383/106423		<0.50	U
o-Xylene	95-47-6		<0.50	U
Total Xylenes		10000	<0.50	U
----------REGULATED VOC'S: TRIHALOMETHANES----------				
Bromodichloromethane	75-27-4	Total	<0.50	U
Bromoform	75-25-2	of all	<0.50	U
Chlorodibromomethane	124-48-1	four	<0.50	U
Chloroform	67-66-3	100	<0.50	U
----------OTHER EPA LISTED VOC'S----------				
Bromobenzene	108-86-1	NR	<0.50	U
Bromochloromethane	74-97-5	NR	<0.50	U
Bromomethane	74-83-9	NR	<0.50	U
n-Butylbenzene	104-51-8	NR	<0.50	U
sec-Butylbenzene	135-98-8	NR	<0.50	U
tert-Butylbenzene	98-06-6	NR	<0.50	U
Chloroethane	75-00-3	NR	<0.50	U
Chloromethane	74-87-3	NR	<0.50	U
2-Chlorotoluene	95-49-8	NR	<0.50	U
4-Chlorotoluene	106-43-4	NR	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	NA	<1.0	U

(report continued on page 2)

Lab No.: 95-34095
Sample Info: 140101-1446

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
1,2-Dibromoethane	106-93-4	NA	<0.50	U
Dibromomethane	74-95-3	NR	<0.50	U
1,3-Dichlorobenzene	541-73-1	NR	<0.50	U
Dichlorodifluoromethane	75-71-8	NR	<0.50	U
1,1-Dichloroethane	75-34-3	NR	<0.50	U
1,1-Dichloropropene	563-58-6	NR	<0.50	U
1,3-Dichloropropane	142-28-9	NR	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	NR	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	NR	<0.50	U
2,2-Dichloropropane	594-20-7	NR	<0.50	U
Fluorotrichloromethane	75-69-4	NR	<0.50	U
Hexachlorobutadiene	87-68-3	NR	<0.50	U
Isopropylbenzene	98-82-8	NR	<0.50	U
p-Isopropyltoluene	99-87-6	NR	<0.50	U
Naphthalene	91-20-3	NR	<0.50	U
n-Propylbenzene	103-65-1	NR	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	NR	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	NR	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	NR	<0.50	U
1,2,3-Trichloropropane	96-18-4	NR	<0.50	U
1,2,4-Trimethylbenzene	95-63-6	NR	<0.50	U
1,3,5-Trimethylbenzene	108-67-8	NR	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.86	89	80--120
Toluene d8	10.0	10.3	103	80--120
p-Bromofluorobenzene	10.0	11.0	110	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 5-times dilution.
NR= No currently regulated amount.
NA= Not applicable to this method. Concentrations are presented for screening purposes. For regulatory compliance, analyze using EPA method 504 which has lower detection limits.

REPORT COMMENTS: None

Analyst: CHD Reviewing Supervisor:

Quality Control Sample: Laboratory Reagent Blank 15-JUN-1995 10:18
Report Date: 06/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va061595.b/jun15010l001.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
----------REGULATED VOLATILE ORGANIC CHEMICALS (VOC'S)----------				
Benzene	71-43-2	5	<0.50	U
Carbon tetrachloride	56-23-5	5	<0.50	U
Chlorobenzene	108-90-7	100	<0.50	U
1,2-Dichlorobenzene	95-50-1	600	<0.50	U
1,4-Dichlorobenzene	106-46-7	75	<0.50	U
1,2-Dichloroethane	107-06-2	5	<0.50	U
1,1-Dichloroethene	75-35-4	7	<0.50	U
cis-1,2-Dichloroethene	156-59-2	70	<0.50	U
trans-1,2-Dichloroethene	156-60-5	100	<0.50	U
1,2-Dichloropropane	78-87-5	5	<0.50	U
Ethyl benzene	100-41-4	700	<0.50	U
Methylene chloride	75-09-2	5	<0.50	U
Styrene	100-42-5	100	<0.50	U
Tetrachloroethene	127-18-4	5	<0.50	U
Toluene	108-88-3	1000	<0.50	U
1,2,4-Trichlorobenzene	120-82-1	70	<0.50	U
1,1,1-Trichloroethane	71-55-6	200	<0.50	U
1,1,2-Trichloroethane	79-00-5	5	<0.50	U
Trichloroethene	79-01-6	5	<0.50	U
Vinyl chloride	75-01-4	2	<0.50	U
m+p-Xylenes	108383/106423		<0.50	U
o-Xylene	95-47-6		<0.50	U
Total Xylenes		10000	<0.50	U
---------------REGULATED VOC'S: TRIHALOMETHANES---------------				
Bromodichloromethane	75-27-4	Total	<0.50	U
Bromoform	75-25-2	of all	<0.50	U
Chlorodibromomethane	124-48-1	four	<0.50	U
Chloroform	67-66-3	100	<0.50	U
--------------------OTHER EPA LISTED VOC'S--------------------				
Bromobenzene	108-86-1	NR	<0.50	U
Bromochloromethane	74-97-5	NR	<0.50	U
Bromomethane	74-83-9	NR	<0.50	U
n-Butylbenzene	104-51-8	NR	<0.50	U
sec-Butylbenzene	135-98-8	NR	<0.50	U
tert-Butylbenzene	98-06-6	NR	<0.50	U
Chloroethane	75-00-3	NR	<0.50	U
Chloromethane	74-87-3	NR	<0.50	U
2-Chlorotoluene	95-49-8	NR	<0.50	U
4-Chlorotoluene	106-43-4	NR	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	NA	<1.0	U

(report continued on page 2)

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
1,2-Dibromoethane	106-93-4	NA	<0.50	U
Dibromomethane	74-95-3	NR	<0.50	U
1,3-Dichlorobenzene	541-73-1	NR	<0.50	U
Dichlorodifluoromethane	75-71-8	NR	<0.50	U
1,1-Dichloroethane	75-34-3	NR	<0.50	U
1,1-Dichloropropene	563-58-6	NR	<0.50	U
1,3-Dichloropropane	142-28-9	NR	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	NR	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	NR	<0.50	U
2,2-Dichloropropane	594-20-7	NR	<0.50	U
Fluorotrichloromethane	75-69-4	NR	<0.50	U
Hexachlorobutadiene	87-68-3	NR	<0.50	U
Isopropylbenzene	98-82-8	NR	<0.50	U
p-Isopropyltoluene	99-87-6	NR	<0.50	U
Naphthalene	91-20-3	NR	<0.50	U
n-Propylbenzene	103-65-1	NR	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	NR	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	NR	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	NR	<0.50	U
1,2,3-Trichloropropane	96-18-4	NR	<0.50	U
1,2,4-Trimethylbenzene	95-63-6	NR	<0.50	U
1,3,5-Trimethylbenzene	108-67-8	NR	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.58	96	80--120
Toluene d8	10.0	11.0	110	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

NR= No currently regulated amount.

NA= Not applicable to this method. Concentrations are presented for screening purposes. For regulatory compliance, analyze using EPA method 504 which has lower detection limits.

REPORT COMMENTS: None

Analyst:________ Reviewing Supervisor:________

Lab Nos. 95-34088-95

Date 06/03/95

Received by J.T. Essex

Logged in by Randa Hoelscher

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s) and associated sample custody information on receipt at the laboratory.

Chain-of-custody form completed & signed	Yes	Comments:
Chain-of-custody seal properly placed	Yes	Comments:
Chain of custody seal intact	Yes	Comments:
Signature Match, Chain-of-custody vs. Seal	Yes	Comments:
Sample received cold	Yes	Comments:
Samples received within holding time	Yes	Comments:
Samples received in proper containers and properly preserved	No	Comments: Samples 95-34092 (pH 4), 95-34093 (pH 6) and 95-34095 (pH 4) were not sufficiently acidified for 524/601 analysis.
Client notified about sample discrepancies		Comments:

Who:________ By:________ Date/Time:________

Method of Shipment: Greyhound bus bill #1228555163

ENVIROCON, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101	PROJECT NAME Livingston Rail Yard
SAMPLERS: (Signature) Michael McKinsey Envirocon 500 Taylor Missoula, MT 59802 (406) 523-1150	

SAMPLED VOLUME	DATE	TIME	COMP.	GRAB	SAMPLE NUMBER	NO. OF CON-TAINERS	601	524.2					REMARKS
	6/1/95	1720			140101 – 1442 A,B	2	X						
	6/1/95	1720			140101 – 1443 A,B	2	X						
	6/1/95	1730			140101 – 1444 A,B	2	X						
	6/1/95	1850			140101 – 1445 A,B	2	X						
	6/2/95	1027			140101 – 1446 A,B	2		X					
	6/2/95	1120			140101 – 1447 A,B	2	X						
	6/2/95	11 20			140101 – 1448 A,B	2	X						
	6/2/95	1330			140101 – 1449 A,B	2	X						

Relinquished (Signature) Michael McKinsey	Date/Time 6/2/95 1518	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Chain of Custody Seal:
Intact? [✓ yes] no) Intact

Lab Personnel (receiving)
Signature: Sandra Hoelscher 06/05/95 @ 0840

Remarks

Split Samples:
[] Accepted [] Declined
Signature

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RECEIVED JUN 0 5 1995

July 3, 1995

Michael McKinsey
Envirocon, Inc.
P.O. Box 8243
Missoula, MT 59807

Dear Michael:

On June 2, 1995, these samples, represented by our laboratory numbers 95-33974 through 95-33994, were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by:

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
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Client: Envirocon, Inc.
Date Sampled: 30-MAY-95 16:22
Date Received: 02-JUN-95
Analysis Date: 06-JUN-1995 20:07
File: /chem/5971A.i/va060695.b/jun061501015.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1422 94-2

Lab No.: 95-33974
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	0.30J
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.7	107	80--120
Toluene d8	10.0	9.99	100	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: CHN Reviewing Supervisor: WB

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Client: Envirocon, Inc.
Date Sampled: 30-MAY-95 16:30
Date Received: 02-JUN-95
Analysis Date: 06-JUN-1995 21:22
File: /chem/5971A.i/va060695.b/jun061701017.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1423 Rainbow Motel

Lab No.: 95-33975
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**2.3**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**11**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.8**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.5	115	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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Client: Envirocon, Inc.
Date Sampled: 30-MAY-95 18:40
Date Received: 02-JUN-95
Analysis Date: 07-JUN-1995 03:29
File: /chem/5971A.i/va060695.b/jun062701027.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1424 Well 3

Lab No.: 95-33976
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.38J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.4	104	80--120
Toluene d8	10.0	10.8	108	80--120
p-Bromofluorobenzene	10.0	11.1	111	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor: WJJ

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Client: Envirocon, Inc.
Date Sampled: 30-MAY-95 17:25
Date Received: 02-JUN-95
Analysis Date: 06-JUN-1995 22:36
File: /chem/5971A.i/va060695.b/jun061901019.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1425 94-1

Lab No.: 95-33977
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**2.5**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.5	115	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

ENERGY LABORATORIES

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Client: Envirocon, Inc.
Date Sampled: 30-MAY-95 18:04
Date Received: 02-JUN-95
Analysis Date: 06-JUN-1995 23:51
File: /chem/5971A.i/va060695.b/jun062101021.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1426 Well #2

Lab No.: 95-33978
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.60**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.9	109	80--120
Toluene d8	10.0	10.8	108	80--120
p-Bromofluorobenzene	10.0	10.7	107	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 30-MAY-95 18:50
Date Received: 02-JUN-95
Analysis Date: 07-JUN-1995 01:05
File: /chem/5971A.i/va060695.b/jun062301023.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1427 Equip. Blank

Lab No.: 95-33979
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**<0.50**	0.29J
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	9.95	99	80--120
p-Bromofluorobenzene	10.0	10.9	109	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 10:06
Date Received: 02-JUN-95
Analysis Date: 07-JUN-1995 02:16
File: /chem/5971A.i/va060695.b/jun062501025.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1428 Well #1

Lab No.: 95-33980
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.22J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.46	95	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 10:06
Date Received: 02-JUN-95
Analysis Date: 12-JUN-1995 22:34
File: /chem/5971A.i/va061295.b/jun122001020.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1428 Well #1 Lab Dup

Lab No.: 95-33980 duplicate
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	0.24J
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.56	96	80--120
Toluene d8	10.0	9.94	99	80--120
p-Bromofluorobenzene	10.0	9.99	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: CHL Reviewing Supervisor: WD

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 10:50
Date Received: 02-JUN-95
Analysis Date: 14-JUN-1995 14:04
File: /chem/IONTRAP2.i/vc061495.b/9533991a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1429 L-88-10

Lab No.: 95-33991
Report Date: 06/15/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
----------REGULATED VOLATILE ORGANIC CHEMICALS (VOC'S)----------				
Benzene	71-43-2	5	<0.50	U
Carbon Tetrachloride	56-23-5	5	<0.50	U
Chlorobenzene	**108-90-7**	100	6.9	
1,2-Dichlorobenzene	**95-50-1**	600	0.66	
1,4-Dichlorobenzene	**106-46-7**	75	0.86	
1,2-Dichloroethane	107-06-2	5	<0.50	U
1,1-Dichloroethene	75-35-4	7	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	70	37	E
trans-1,2-Dichloroethene	**156-60-5**	100	<0.50	0.43J
1,2-Dichloropropane	78-87-5	5	<0.50	U
Ethylbenzene	100-41-4	700	<0.50	U
Methylene Chloride	75-09-2	5	<0.50	U
Styrene	100-42-5	100	<0.50	U
Tetrachloroethene	**127-18-4**	5	44	E
Toluene	108-88-3	1000	<0.50	U
1,2,4-Trichlorobenzene	120-82-1	70	<0.50	U
1,1,1-Trichloroethane	71-55-6	200	<0.50	U
1,1,2-Trichloroethane	79-00-5	5	<0.50	U
Trichloroethene	**79-01-6**	5	12	
Vinyl Chloride	**75-01-4**	2	0.98	
m+p-Xylenes	108383/106423		<0.50	U
o-Xylene	95-47-6		<0.50	U
Total Xylenes		10000	<0.50	U
----------REGULATED VOC'S: TRIHALOMETHANES----------				
Bromodichloromethane	75-27-4	Total	<0.50	U
Bromoform	75-25-2	of all	<0.50	U
Chlorodibromomethane	124-48-1	four	<0.50	U
Chloroform	**67-66-3**	100	<0.50	0.12J
----------OTHER EPA LISTED VOC'S----------				
Bromobenzene	108-86-1	NR	<0.50	U
Bromochloromethane	74-97-5	NR	<0.50	U
Bromomethane	74-83-9	NR	<0.50	U
n-Butylbenzene	104-51-8	NR	<0.50	U
sec-Butylbenzene	135-98-8	NR	<0.50	U
tert-Butylbenzene	98-06-6	NR	<0.50	U
Chloroethane	75-00-3	NR	<0.50	U
Chloromethane	74-87-3	NR	<0.50	U
2-Chlorotoluene	**95-49-8**	NR	0.66	
4-Chlorotoluene	106-43-4	NR	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	NA	<0.50	U

(report continued on page 2)

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
1,2-Dibromoethane	106-93-4	NA	<0.50	U
Dibromomethane	74-95-3	NR	<0.50	U
1,3-Dichlorobenzene	**541-73-1**	**NR**	**<0.50**	**0.14J**
Dichlorodifluoromethane	75-71-8	NR	<0.50	U
1,1-Dichloroethane	75-34-3	NR	<0.50	U
1,1-Dichloropropene	563-58-6	NR	<0.50	U
1,3-Dichloropropane	142-28-9	NR	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	NR	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	NR	<0.50	U
2,2-Dichloropropane	594-20-7	NR	<0.50	U
Fluorotrichloromethane	75-69-4	NR	<0.50	U
Hexachlorobutadiene	87-68-3	NR	<0.50	U
Isopropylbenzene	98-82-8	NR	<0.50	U
p-Isopropyltoluene	99-87-6	NR	<0.50	U
Naphthalene	91-20-3	NR	<0.50	U
n-Propylbenzene	103-65-1	NR	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	NR	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	NR	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	NR	<0.50	U
1,2,3-Trichloropropane	96-18-4	NR	<0.50	U
1,2,4-Trimethylbenzene	**95-63-6**	**NR**	**1.3**	
1,3,5-Trimethylbenzene	108-67-8	NR	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.60	96	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	9.90	99	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
E= Estimated value. This value is greater than the high calibration point of 20ppb.
There was insufficient sample to make a dilution.
J= Estimated value. Present, but less than the limit of quantitation.
NR= No currently regulated amount.
NA= Not applicable to this method. Concentrations are presented for screening purposes. For regulatory compliance, analyze using EPA method 504 which has lower detection limits.

REPORT COMMENTS: Two values exceeded the upper calibration point and are marked with an E. The analyst failed to properly note the needed dilution and used the remaining sample for a matrix spike before the error was discovered.

Analyst:________ Reviewing Supervisor:________

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 13:25
Date Received: 02-JUN-95
Analysis Date: 08-JUN-95 05:25
File: /chem/5971A.i/va060795.b/jun073501035.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1430 L-87-3

Lab No.: 95-33981
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**17**	
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	0.35J
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**88**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**8.6**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.01	90	80--120
Toluene d8	10.0	10.7	107	80--120
p-Bromofluorobenzene	10.0	11.3	113	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 10-times dilution.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: WB

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 15:20
Date Received: 02-JUN-95
Analysis Date: 08-JUN-95 06:01
File: /chem/5971A.i/va060795.b/jun073601036.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1431 L-88-13

Lab No.: 95-33982
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.5**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**19**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.4**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**<0.50**	**0.31J**
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.06	91	80--120
Toluene d8	10.0	10.5	105	80--120
p-Bromofluorobenzene	10.0	11.2	112	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor: WTB

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 14:25
Date Received: 02-JUN-95
Analysis Date: 09-JUN-95 12:23
File: /chem/5971A.i/va060995.b/jun09070l007.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1432 HRO-10

Lab No.: 95-33983
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**13**	
1,2-Dichlorobenzene	**95-50-1**	**1.6**	
1,4-Dichlorobenzene	**106-46-7**	**1.4**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**23**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**1.2**	
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.49J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**9.9**	
Vinyl chloride	**75-01-4**	**2.0**	
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	**95-49-8**	**22**	**D**
1,3-Dichlorobenzene	**541-73-1**	**<0.50**	**0.23J**
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.16	82	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	9.74	97	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 5-times dilution.

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor: WM

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 14:45
Date Received: 02-JUN-95
Analysis Date: 09-JUN-95 13:45
File: /chem/5971A.i/va060995.b/jun090901009.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1433 VE-50

Lab No.: 95-33984
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**36**	**D**
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	**106-46-7**	**2.8**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	**75-35-4**	**<0.50**	**0.11J**
cis-1,2-Dichloroethene	**156-59-2**	**47**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**2.2**	
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.15J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**16**	
Vinyl chloride	**75-01-4**	**20**	
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.86	89	80--120
Toluene d8	10.0	9.93	99	80--120
p-Bromofluorobenzene	10.0	9.07	91	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 5-times dilution.

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor: WM

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 16:17
Date Received: 02-JUN-95
Analysis Date: 14-JUN-1995 14:43
File: /chem/IONTRAP2.i/vc061495.b/9533992a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1434 L-87-8

Lab No.: 95-33992
Report Date: 06/15/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
REGULATED VOLATILE ORGANIC CHEMICALS (VOC'S)				
Benzene	71-43-2	5	<0.50	U
Carbon Tetrachloride	56-23-5	5	<0.50	U
Chlorobenzene	108-90-7	100	<0.50	U
1,2-Dichlorobenzene	95-50-1	600	<0.50	U
1,4-Dichlorobenzene	106-46-7	75	<0.50	U
1,2-Dichloroethane	107-06-2	5	<0.50	U
1,1-Dichloroethene	75-35-4	7	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	70	**<0.50**	0.42J
trans-1,2-Dichloroethene	156-60-5	100	<0.50	U
1,2-Dichloropropane	78-87-5	5	<0.50	U
Ethylbenzene	100-41-4	700	<0.50	U
Methylene Chloride	75-09-2	5	<0.50	U
Styrene	100-42-5	100	<0.50	U
Tetrachloroethene	**127-18-4**	5	**3.7**	
Toluene	108-88-3	1000	<0.50	U
1,2,4-Trichlorobenzene	120-82-1	70	<0.50	U
1,1,1-Trichloroethane	71-55-6	200	<0.50	U
1,1,2-Trichloroethane	79-00-5	5	<0.50	U
Trichloroethene	**79-01-6**	5	**1.6**	
Vinyl Chloride	75-01-4	2	<0.50	U
m+p-Xylenes	108383/106423		<0.50	U
o-Xylene	95-47-6		<0.50	U
Total Xylenes		10000	<0.50	U
REGULATED VOC'S: TRIHALOMETHANES				
Bromodichloromethane	75-27-4	Total	<0.50	U
Bromoform	75-25-2	of all	<0.50	U
Chlorodibromomethane	124-48-1	four	<0.50	U
Chloroform	67-66-3	100	<0.50	U
OTHER EPA LISTED VOC'S				
Bromobenzene	108-86-1	NR	<0.50	U
Bromochloromethane	74-97-5	NR	<0.50	U
Bromomethane	74-83-9	NR	<0.50	U
n-Butylbenzene	104-51-8	NR	<0.50	U
sec-Butylbenzene	**135-98-8**	NR	**<0.50**	0.34J
tert-Butylbenzene	98-06-6	NR	<0.50	U
Chloroethane	75-00-3	NR	<0.50	U
Chloromethane	74-87-3	NR	<0.50	U
2-Chlorotoluene	95-49-8	NR	<0.50	U
4-Chlorotoluene	106-43-4	NR	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	NA	<0.50	U

(report continued on page 2)

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
1,2-Dibromoethane	106-93-4	NA	<0.50	U
Dibromomethane	74-95-3	NR	<0.50	U
1,3-Dichlorobenzene	541-73-1	NR	<0.50	U
Dichlorodifluoromethane	75-71-8	NR	<0.50	U
1,1-Dichloroethane	75-34-3	NR	<0.50	U
1,1-Dichloropropene	563-58-6	NR	<0.50	U
1,3-Dichloropropane	142-28-9	NR	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	NR	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	NR	<0.50	U
2,2-Dichloropropane	594-20-7	NR	<0.50	U
Fluorotrichloromethane	75-69-4	NR	<0.50	U
Hexachlorobutadiene	87-68-3	NR	<0.50	U
Isopropylbenzene	**98-82-8**	**NR**	**<0.50**	0.17J
p-Isopropyltoluene	**99-87-6**	**NR**	**0.62**	
Naphthalene	91-20-3	NR	<0.50	U
n-Propylbenzene	103-65-1	NR	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	NR	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	NR	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	NR	<0.50	U
1,2,3-Trichloropropane	96-18-4	NR	<0.50	U
1,2,4-Trimethylbenzene	**95-63-6**	**NR**	**1.3**	
1,3,5-Trimethylbenzene	108-67-8	NR	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	9.60	96	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
NR= No currently regulated amount.
NA= Not applicable to this method. Concentrations are presented for screening purposes. For regulatory compliance, analyze using EPA method 504 which has lower detection limits.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 17:35
Date Received: 02-JUN-95
Analysis Date: 09-JUN-95 10:30
File: /chem/5971A.i/va060995.b/jun090401004.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1435 89-4

Lab No.: 95-33985
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**0.70**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.6**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.19	82	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	11.4	114	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 17:35
Date Received: 02-JUN-95
Analysis Date: 09-JUN-95 11:10
File: /chem/5971A.i/va060995.b/jun090501005.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1436 89-4 Duplicate

Lab No.: 95-33986
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**0.73**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.6**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.70	87	80--120
Toluene d8	10.0	10.7	107	80--120
p-Bromofluorobenzene	10.0	11.1	111	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 19:55
Date Received: 02-JUN-95
Analysis Date: 09-JUN-95 11:46
File: /chem/5971A.i/va060995.b/jun09060l006.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1437 89-7

Lab No.: 95-33987
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**10**	
1,1,1-Trichloroethane	**71-55-6**	**<0.50**	**0.37J**
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.4**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.93	89	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor: WM

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Client: Envirocon, Inc.
Date Sampled: 31-MAY-95 20:00
Date Received: 02-JUN-95
Analysis Date: 09-JUN-1995 23:33
File: /chem/5971A.i/va060995.b/jun092501025.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1438 Equip. Blank

Lab No.: 95-33988
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	**75-27-4**	**<0.50**	**0.30J**
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**6.4**	
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.53	85	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst:______ Reviewing Supervisor:______

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Client: Envirocon, Inc.
Date Sampled: 01-JUN-95 09:05
Date Received: 02-JUN-95
Analysis Date: 14-JUN-1995 22:21
File: /chem/IONTRAP2.i/vc061495.b/9533993a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1439 L-87-2

Lab No.: 95-33993
Report Date: 06/19/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
----------REGULATED VOLATILE ORGANIC CHEMICALS (VOC'S)----------				
Benzene	**71-43-2**	**5**	**<0.50**	**0.11J**
Carbon Tetrachloride	56-23-5	5	<0.50	U
Chlorobenzene	**108-90-7**	**100**	**26**	**D**
1,2-Dichlorobenzene	**95-50-1**	**600**	**2.1**	
1,4-Dichlorobenzene	**106-46-7**	**75**	**2.4**	
1,2-Dichloroethane	107-06-2	5	<0.50	U
1,1-Dichloroethene	75-35-4	7	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**70**	**34**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**100**	**2.1**	
1,2-Dichloropropane	78-87-5	5	<0.50	U
Ethylbenzene	**100-41-4**	**700**	**<0.50**	**0.22J**
Methylene Chloride	75-09-2	5	<0.50	U
Styrene	100-42-5	100	<0.50	U
Tetrachloroethene	127-18-4	5	<0.50	U
Toluene	**108-88-3**	**1000**	**<0.50**	**0.41J**
1,2,4-Trichlorobenzene	120-82-1	70	<0.50	U
1,1,1-Trichloroethane	71-55-6	200	<0.50	U
1,1,2-Trichloroethane	79-00-5	5	<0.50	U
Trichloroethene	**79-01-6**	**5**	**13**	
Vinyl Chloride	**75-01-4**	**2**	**13**	**D**
m+p-Xylenes	108383/106423		<0.50	U
o-Xylene	**95-47-6**		**1.7**	
Total Xylenes		**10000**	**1.7**	
---------------REGULATED VOC'S: TRIHALOMETHANES---------------				
Bromodichloromethane	75-27-4	Total	<0.50	U
Bromoform	75-25-2	of all	<0.50	U
Chlorodibromomethane	124-48-1	four	<0.50	U
Chloroform	**67-66-3**	**100**	**2.1**	
--------------------OTHER EPA LISTED VOC'S--------------------				
Bromobenzene	108-86-1	NR	<0.50	U
Bromochloromethane	74-97-5	NR	<0.50	U
Bromomethane	74-83-9	NR	<0.50	U
n-Butylbenzene	104-51-8	NR	<0.50	U
sec-Butylbenzene	135-98-8	NR	<0.50	U
tert-Butylbenzene	98-06-6	NR	<0.50	U
Chloroethane	75-00-3	NR	<0.50	U
Chloromethane	74-87-3	NR	<0.50	U
2-Chlorotoluene	**95-49-8**	**NR**	**41**	**D**
4-Chlorotoluene	106-43-4	NR	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	NA	<0.50	U

(report continued on page 2)

Lab No.: 95-33993
Sample Info: 140101-1439

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
1,2-Dibromoethane	106-93-4	NA	<0.50	U
Dibromomethane	74-95-3	NR	<0.50	U
1,3-Dichlorobenzene	**541-73-1**	**NR**	**<0.50**	**0.33J**
Dichlorodifluoromethane	75-71-8	NR	<0.50	U
1,1-Dichloroethane	75-34-3	NR	<0.50	U
1,1-Dichloropropene	563-58-6	NR	<0.50	U
1,3-Dichloropropane	142-28-9	NR	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	NR	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	NR	<0.50	U
2,2-Dichloropropane	594-20-7	NR	<0.50	U
Fluorotrichloromethane	75-69-4	NR	<0.50	U
Hexachlorobutadiene	87-68-3	NR	<0.50	U
Isopropylbenzene	98-82-8	NR	<0.50	U
p-Isopropyltoluene	99-87-6	NR	<0.50	U
Naphthalene	91-20-3	NR	<0.50	U
n-Propylbenzene	103-65-1	NR	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	NR	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	NR	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	NR	<0.50	U
1,2,3-Trichloropropane	96-18-4	NR	<0.50	U
1,2,4-Trimethylbenzene	**95-63-6**	**NR**	**2.2**	
1,3,5-Trimethylbenzene	108-67-8	NR	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	10.4	104	80--120
p-Bromofluorobenzene	10.0	10.1	101	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.
NR= No currently regulated amount.
NA= Not applicable to this method. Concentrations are presented for screening purposes. For regulatory compliance, analyze using EPA method 504 which has lower detection limits.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 01-JUN-95 10:10
Date Received: 02-JUN-95
Analysis Date: 10-JUN-1995 00:09
File: /chem/5971A.i/va060995.b/jun092601026.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1440 89-3

Lab No.: 95-33989
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**<0.50**	0.21J
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**241**	D
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.8**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.42	84	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 50-times dilution.

REPORT COMMENTS: None

Analyst: CHD Reviewing Supervisor: WTB

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Client: Envirocon, Inc.
Date Sampled: 01-JUN-95 11:50
Date Received: 02-JUN-95
Analysis Date: 12-JUN-1995 23:11
File: /chem/5971A.i/va061295.b/jun122101021.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1441 92-1

Lab No.: 95-33990
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.1**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**88**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**<0.50**	0.16J
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.67	97	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 10-times dilution.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 13-JUN-1995 01:02
Lab No.: 95-33981ms
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va061295.b/jun122401024.d

Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	50.0	<0.50	53.7	107	60--140
1,1-Dichloroethene	50.0	<0.50	54.4	109	60--140
Tetrachloroethene	50.0	88	137	98	60--140
Trichloroethene	50.0	8.6	59.1	101	60--140

EPA METHOD 624 MATRIX SPIKE DUPLICATE REPORT

Quality Control Sample: Matrix Spike Duplicate Analysis 13-JUN-95 01:39
Lab No.: 95-33981msd
File: /chem/5971A.i/va061295.b/jun122501025.d

Remarks: These compounds were again spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy and precision of the methodolgy.

CONCENTRATION UNITS = ug/L (ppb)

	Spike	Matrix Spike	MSD		---QC Limits--	
Spike Compound	Added	Dup. Conc.	%Rec	%RPD	RPD	Rec
Chlorobenzene	50.0	52	104	2.8	13	60--140
1,1-Dichloroethene	50.0	54	108	0.92	14	60--140
Tetrachloroethene	50.0	141	106	7.8	15	60--140
Trichloroethene	50.0	60	103	2.0	14	60--140

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

EPA METHOD 624 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 09-JUN-1995 09:18
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va060995.b/jun090201002a.d

Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Added	Measured	%Rec	QC Limits
Carbon tetrachloride	5.00	4.89	98	60--140
Chlorobenzene	5.00	5.56	111	60--140
1,4-Dichlorobenzene	5.00	4.96	99	60--140
1,2-Dichloroethane	5.00	4.39	88	60--140
1,1-Dichloroethene	5.00	4.77	95	60--140
trans-1,2-Dichloroethene	5.00	4.76	95	60--140
1,2-Dichloropropane	5.00	4.39	88	60--140
Ethyl benzene	5.00	6.22	124	60--140
Tetrachloroethene	5.00	4.95	99	60--140
1,1,2-Trichloroethane	5.00	4.63	93	60--140
1,3-Dichlorobenzene	5.00	5.04	101	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.35	94	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor: WTB

EPA METHOD 624 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 12-JUN-1995 21:21
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va061295.b/jun121801018.d
Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Added	Measured	%Rec	QC Limits
Carbon tetrachloride	5.00	5.02	100	60--140
Chlorobenzene	5.00	5.13	103	60--140
1,4-Dichlorobenzene	5.00	4.91	98	60--140
1,2-Dichloroethane	5.00	4.94	99	60--140
1,1-Dichloroethene	5.00	4.80	96	60--140
trans-1,2-Dichloroethene	5.00	4.89	98	60--140
1,2-Dichloropropane	5.00	5.06	101	60--140
Ethyl benzene	5.00	5.31	106	60--140
Tetrachloroethene	5.00	5.01	100	60--140
1,1,2-Trichloroethane	5.00	5.42	108	60--140
1,3-Dichlorobenzene	5.00	5.05	101	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.6	106	80--120
Toluene d8	10.0	10.3	103	80--120
p-Bromofluorobenzene	10.0	9.86	99	80--120

REPORT COMMENTS: None

Analyst: CHH   Reviewing Supervisor: WTB

Quality Control Sample: Laboratory Reagent Blank 06-JUN-1995 19:30
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va060695.b/jun061401014.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Quality Control Sample: Laboratory Reagent Blank 08-JUN-1995 04:49
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va060795.b/jun073401034.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.18	92	80--120
Toluene d8	10.0	10.8	108	80--120
p-Bromofluorobenzene	10.0	11.4	114	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor: WM

Quality Control Sample: Laboratory Reagent Blank 09-JUN-1995 09:54
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va060995.b/jun090301003a.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.09	91	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	10.7	107	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Quality Control Sample: Laboratory Reagent Blank 09-JUN-1995 22:56
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va060995.b/jun092401024.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.40	84	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: CJH Reviewing Supervisor: WTB

Quality Control Sample: Laboratory Reagent Blank 12-JUN-1995 21:58
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va061295.b/jun121901019.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.76	98	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	9.94	99	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Quality Control Sample: Laboratory Reagent Blank 14-JUN-1995 09:07
Report Date: 06/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc061495.b/blk0614aa.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
----------REGULATED VOLATILE ORGANIC CHEMICALS (VOC'S)-----------				
Benzene	71-43-2	5	<0.50	U
Carbon Tetrachloride	56-23-5	5	<0.50	U
Chlorobenzene	108-90-7	100	<0.50	U
1,2-Dichlorobenzene	95-50-1	600	<0.50	U
1,4-Dichlorobenzene	106-46-7	75	<0.50	U
1,2-Dichloroethane	107-06-2	5	<0.50	U
1,1-Dichloroethene	75-35-4	7	<0.50	U
cis-1,2-Dichloroethene	156-59-2	70	<0.50	U
trans-1,2-Dichloroethene	156-60-5	100	<0.50	U
1,2-Dichloropropane	78-87-5	5	<0.50	U
Ethylbenzene	100-41-4	700	<0.50	U
Methylene Chloride	75-09-2	5	<0.50	U
Styrene	100-42-5	100	<0.50	U
Tetrachloroethene	127-18-4	5	<0.50	U
Toluene	108-88-3	1000	<0.50	U
1,2,4-Trichlorobenzene	120-82-1	70	<0.50	U
1,1,1-Trichloroethane	71-55-6	200	<0.50	U
1,1,2-Trichloroethane	79-00-5	5	<0.50	U
Trichloroethene	79-01-6	5	<0.50	U
Vinyl Chloride	75-01-4	2	<0.50	U
m+p-Xylenes	108383/106423		<0.50	U
o-Xylene	95-47-6		<0.50	U
Total Xylenes		10000	<0.50	U
---------------REGULATED VOC'S: TRIHALOMETHANES----------------				
Bromodichloromethane	75-27-4	Total	<0.50	U
Bromoform	75-25-2	of all	<0.50	U
Chlorodibromomethane	124-48-1	four	<0.50	U
Chloroform	67-66-3	100	<0.50	U
--------------------OTHER EPA LISTED VOC'S--------------------				
Bromobenzene	108-86-1	NR	<0.50	U
Bromochloromethane	74-97-5	NR	<0.50	U
Bromomethane	74-83-9	NR	<0.50	U
n-Butylbenzene	104-51-8	NR	<0.50	U
sec-Butylbenzene	135-98-8	NR	<0.50	U
tert-Butylbenzene	98-06-6	NR	<0.50	U
Chloroethane	75-00-3	NR	<0.50	U
Chloromethane	74-87-3	NR	<0.50	U
2-Chlorotoluene	95-49-8	NR	<0.50	U
4-Chlorotoluene	106-43-4	NR	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	NA	<0.50	U

(report continued on page 2)

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
1,2-Dibromoethane	106-93-4	NA	<0.50	U
Dibromomethane	74-95-3	NR	<0.50	U
1,3-Dichlorobenzene	541-73-1	NR	<0.50	U
Dichlorodifluoromethane	75-71-8	NR	<0.50	U
1,1-Dichloroethane	75-34-3	NR	<0.50	U
1,1-Dichloropropene	563-58-6	NR	<0.50	U
1,3-Dichloropropane	142-28-9	NR	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	NR	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	NR	<0.50	U
2,2-Dichloropropane	594-20-7	NR	<0.50	U
Fluorotrichloromethane	75-69-4	NR	<0.50	U
Hexachlorobutadiene	87-68-3	NR	<0.50	U
Isopropylbenzene	98-82-8	NR	<0.50	U
p-Isopropyltoluene	99-87-6	NR	<0.50	U
Naphthalene	91-20-3	NR	<0.50	U
n-Propylbenzene	103-65-1	NR	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	NR	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	NR	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	NR	<0.50	U
1,2,3-Trichloropropane	96-18-4	NR	<0.50	U
1,2,4-Trimethylbenzene	95-63-6	NR	<0.50	U
1,3,5-Trimethylbenzene	108-67-8	NR	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.9	119	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	8.90	89	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

NR= No currently regulated amount.

NA= Not applicable to this method. Concentrations are presented for screening purposes. For regulatory compliance, analyze using EPA method 504 which has lower detection limits.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

EPA METHOD 524.2 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 15-JUN-95 15:34
Lab No.: 95-33991
Report Date: 06/27/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc061595.b/9533991s.d
Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Benzene	5.00	<0.500	4.60	92	60--140
Chlorobenzene	5.00	6.90	10.1	64	60--140
1,1-Dichloroethene	5.00	<0.500	4.80	96	60--140
Tetrachloroethene	5.00	44E	34.8E	NA	60--140
Toluene	5.00	<0.500	5.10	102	60--140
Trichloroethene	5.00	12	15.1	62	60--140

E= Value exceeded the upper linear limit of the calibration curve and is an estimate.
NA= Not applicable. The value from the matrix spike was not a valid number.

REPORT COMMENTS: There was insufficient sample remaining to do an additional dilution for the tetrachloroethene.

Analyst: ________ Reviewing Supervisor: ________

EPA METHOD 524.2 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 08-JUN-1995 12:14
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060895.b/qcs0608a.d

Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Added	Measured	%Rec	QC Limits
Carbon Tetrachloride	5.00	5.00	100	60--140
Chlorobenzene	5.00	5.10	102	60--140
1,4-Dichlorobenzene	5.00	5.20	104	60--140
1,2-Dichloroethane	5.00	5.10	102	60--140
1,1-Dichloroethene	5.00	5.00	100	60--140
trans-1,2-Dichloroethene	5.00	5.00	100	60--140
1,2-Dichloropropane	5.00	4.90	98	60--140
Ethylbenzene	5.00	5.90	118	60--140
Tetrachloroethene	5.00	5.30	106	60--140
1,1,2-Trichloroethane	5.00	4.80	96	60--140
1,3-Dichlorobenzene	5.00	5.40	108	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.4	114	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	9.10	91	80--120

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

Lab Nos. 95-33974-94

Date 06/02/95

Received by Pam Fink

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s) and associated sample custody information on receipt at the laboratory.

Chain-of-custody form completed & signed	Yes	Comments:
Chain-of-custody seal properly placed	Yes	Comments:
Chain of custody seal intact	Yes	Comments:
Signature Match, Chain-of-custody vs. Seal	Yes	Comments:
Sample received cold	Yes	Comments:
Samples received within holding time	Yes	Comments:
Samples received in proper containers and properly preserved	No	Comments: (1)
Client notified about sample discrepancies		Comments:

Who:________ By:________ Date/Time:________

Method of Shipment: Greyhound Bus Bill #1228554756

(1) Samples 95-33974, 76, 78, 79, 81, 83, 84, 91 and 95-33993 were not acidified or inadequately acidified and therefore were not properly preserved for 601 or 524.2 analysis.

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101	PROJECT NAME Livingston Rail Yard

SAMPLERS: (Signature) Michael McKinzey
Envirocon
500 Taylor
Missoula, MT 59802 (406) 523-1150

SAMPLED VOLUME	DATE	TIME	COMP.	GRAB	SAMPLE NUMBER	NO. OF CONTAINERS	601	524.2					REMARKS
	5/30/95	1622			140101-1422A	1	X						
	5/30/95	1622			140101-1422B	1	X						
	5/30/95	1630			140101-1423A	1	X						
	5/30/95	1630			140101-1423B	1	X						
	5/30/95	1840			140101-1424A	1	X						
	5/30/95	1840			140101-1424B	1	X						
	5/30/95	1725			140101-1425A	1	X						
	5/30/95	1725			140101-1425B	1	X						
	6/20/95	1804			140101-1426A	1	X						
	5/30/95	1804			140101-1426B	1	X						
	5/30/95	1850			140101-1427A	1	X						
	5/30/95	1850			140101-1427B	1	X						
	5/31/95	1006			140101-1428A	1	X						
	5/31/95	1006			140101-1428B	1	X						
	5/31/95	1050			140101-1429A	1		X					

Relinquished (Signature)	Date/Time		Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Michael McKinzey	6/1/95	1505				
Relinquished (Signature)	Date/Time		Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Chain of Custody Seal:

Intact? [✓ yes] no

Lab Personnel (receiving) 06/02/95 @ 1108

Signature: Pam Fink

Remarks

Split Samples:
[] Accepted [] Declined
Signature

1 of 3

ENVIROCON, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101	PROJECT NAME Livingston Rail Yard

SAMPLERS: (Signature) Michael McKinzey

SAMPLED VOLUME	DATE	TIME	COMP.	GRAB	SAMPLE NUMBER	NO. OF CON-TAINERS	601	524.2					REMARKS
	5/31/95	1050			140101-1429 B	1		X					
	5/31/95	1325			140101-1430 A	1	X						
	5/31/95	1325			140101-1430 B	1	X						
	5/31/95	1520			140101-1431 A	1	X						
	5/31/95	1520			140101-1431 B	1	X						
	5/31/95	1425			140101-1432 A	1	X						
	5/31/95	1425			140101-1432 B	1	X						
	5/31/95	1445			140101-1433 A	1	X						
	5/31/95	1445			140101-1433 B	1	X						
	5/31/95	1617			140101-1434 A	1		X					
	5/31/95	1617			140101-1434 B	1		X					
	5/31/95	1735			140101-1435 A	1	X						
	5/31/95	1735			140101-1435 B	1	X						
	5/31/95	1735			140101-1436 A	1	X						
	5/31/95	1735			140101-1436 B	1	X						

Relinquished (Signature) Michael McKinzey	Date/Time 6/1/95 1505	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Chain of Custody Seal:

Intact? [✓ yes]/no

Lab Personnel (receiving)

Signature: 1108

Remarks

Split Samples:

ENVIROCON, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101

PROJECT NAME Livingston Rail Yard

SAMPLERS: (Signature) Michael McKinney

SAMPLED VOLUME	DATE	TIME	COMP.	GRAB	SAMPLE NUMBER	NO. OF CON-TAINERS	601	524.2					REMARKS
	5/31/95	1955			140101-1437A	1	X						
	5/31/95	1955			140101-1437B	1	X						
	5/31/95				140101-1438A	1	X						
	5/31/95				140101-1438B	1	X						
	6/1/95	905			140101-1439A	1		X					
	6/1/95	905			140101-1439B	1		X					
	6/1/95	1010			140101-1440A	1	X						
	6/1/95	1010			140101-1440~~A~~B	1	X						
	6/1/95	1150			140101-1441A	1	X						
	6/1/95	1150			140101-1441B	1	X						
	6/1/95	1220			140101-1398A	1		X					
	6/1/95	1220			140101-1398B	1		X					

Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Michael McKinney	6/1/95 1505				

Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Chain of Custody Seal:

Intact? [✓ yes] no)

Lab Personnel (receiving)

Signature: Reinstein 06/02/95 @ 1105

Remarks

Split Samples:
[] Accepted [] Declined

Signature

3 of 3

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
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FAX (406) 252-6069 • 1-800-735-4489

June 27, 1995

Michael McKinsey
Envirocon, Inc.
P.O. Box 8243
Missoula, MT 59807

Dear Michael:

On May 27, 1995, these samples, represented by our laboratory numbers 95-33542 through 95-33551, were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by:

ENERGY LABORATORIES, INC.
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Client: Envirocon, Inc.
Date Sampled: 25-MAY-95
Date Received: 27-MAY-95
Analysis Date: 05-JUN-1995 18:48
File: /chem/IONTRAP2.i/vc060595.b/9533542a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1412, B St [redacted]

Lab No.: 95-33542
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**5.4**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**<0.50**	**0.22J**
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	**75-27-4**	**0.72**	
Bromoform	**75-25-2**	**1.2**	
Chlorodibromomethane	**124-48-1**	**1.6**	
Chloroform	**67-66-3**	**<0.50**	**0.38J**
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.80	98	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	9.60	96	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 25-MAY-95
Date Received: 27-MAY-95
Analysis Date: 05-JUN-1995 19:39
File: /chem/IONTRAP2.i/vc060595.b/9533543a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1413, 89-1

Lab No.: 95-33543
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**<0.50**	**0.22J**
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**8.8**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**<0.50**	**0.32J**
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	9.80	98	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst. ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 25-MAY-95
Date Received: 27-MAY-95
Analysis Date: 07-JUN-1995 17:01
File: /chem/IONTRAP2.i/vc060795.b/9533544b.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1414, 89-1 Duplicate

Lab No.: 95-33544
Report Date: 06/12/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**<0.50**	**0.19J**
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**9.8**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**<0.50**	**0.34J**
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.9	109	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	9.30	93	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

ENERGY LABORATORIES

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Client: Envirocon, Inc.
Date Sampled: 25-MAY-95
Date Received: 27-MAY-95
Analysis Date: 06-JUN-1995 01:17
File: /chem/IONTRAP2.i/vc060595.b/9533545a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1415 Equip. Blank

Lab No.: 95-33545
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**0.63**	
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.3	103	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: WB

ENERGY LABORATORIES

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 25-MAY-95
Date Received: 27-MAY-95
Analysis Date: 06-JUN-1995 02:05
File: /chem/IONTRAP2.i/vc060595.b/9533546a.d
Project Info: Livingston Rail Yard [redacted]
Sample Info: 140101-1416, 8

Lab No.: 95-33546
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**3.0**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**59**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.2**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.70	97	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 26-MAY-95
Date Received: 27-MAY-95
Analysis Date: 07-JUN-1995 18:26
File: /chem/IONTRAP2.i/vc060795.b/9533547b.d
Project Info: Livingston Rail Yard [redacted]
Sample Info: 140101-1417, 90-2B

Lab No.: 95-33547
Report Date: 06/12/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**23**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	**0.32J**
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**60**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**9.6**	
Vinyl Chloride	**75-01-4**	**0.94**	
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**1.0**	
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.7	107	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	9.70	97	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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Client: Envirocon, Inc.
Date Sampled: 26-MAY-95
Date Received: 27-MAY-95
Analysis Date: 06-JUN-95 05:14
File: /chem/IONTRAP2.i/vc060595.b/9533548a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1418, 89-10

Lab No.: 95-33548
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**11**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**61**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**5.1**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.80	98	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 26-MAY-95
Date Received: 27-MAY-95
Analysis Date: 06-JUN-1995 14:25
File: /chem/IONTRAP2.i/vc060695.b/9533549a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1419, 89-10 Duplicate [redacted]

Lab No.: 95-33549
Report Date: 06/19/95
Extraction Methoa: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**13**	
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	**0.24J**
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**60**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**5.9**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.4	104	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: HJC

Reviewing Supervisor: WB

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Client: Envirocon, Inc.
Date Sampled: 26-MAY-95
Date Received: 27-MAY-95
Analysis Date: 07-JUN-1995 02:18
File: /chem/IONTRAP2.i/vc060695.b/9533550a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1420 Equip. Blank

Lab No.: 95-33550
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**0.63**	
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	12.0	120	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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Client: Envirocon, Inc.
Date Sampled: 26-MAY-95
Date Received: 27-MAY-95
Analysis Date: 08-JUN-1995 15:38
File: /chem/IONTRAP2.i/vc060895.b/9533550b.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1420 Equip. Blank Lab Dup

Lab No.: 95-33550 Duplicate
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**0.59**	
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-6[illegible]-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-3[illegible]-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.2	112	80--120
Toluene d8	10.0	9.50	95	80--120
p-Bromofluorobenzene	10.0	8.80	88	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: Reviewing Supervisor:

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Client: Envirocon, Inc.
Date Sampled: 26-MAY-95
Date Received: 27-MAY-95
Analysis Date: 07-JUN-1995 03:42
File: /chem/IONTRAP2.i/vc060695.b/9533551a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1421, 89-6

Lab No.: 95-33551
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**16**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**<0.50**	**0.34J**
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	11.5	115	80--120
p-Bromofluorobenzene	10.0	10.1	101	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

Quality Control Sample: Laboratory Reagent Blank 05-JUN-1995 15:53
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060595.b/blk0605c.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.60	96	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Quality Control Sample: Laboratory Reagent Blank 06-JUN-1995 12:21
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060695.b/blk0606c.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.30	93	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

Quality Control Sample: Laboratory Reagent Blank 07-JUN-1995 00:54
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060695.b/blk0607a.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.50	95	80--120
Toluene d8	10.0	11.5	115	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: WB

Quality Control Sample: Laboratory Reagent Blank 07-JUN-1995 15:37
Report Date: 06/12/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060795.b/blk0607g.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 15-JUN-1995 14:54
Lab No.: 95-33551
Report Date: 06/19/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc061595.b/9533551s.d
Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	5.00	<0.500	4.10	82	60--140
1,1-Dichloroethene	5.00	<0.500	3.70	74	60--140
Trichloroethene	5.00	<0.500	4.10	82	60--140
Tetrachloroethene	5.00	16.2	19.5	66	60--140

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: WTD

EPA METHOD 624 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 06-JUN-1995 23:27
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060695.b/qcs0606a.d

Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Added	Measured	%Rec	QC Limits
Carbon Tetrachloride	5.00	4.80	96	60--140
Chlorobenzene	5.00	5.10	102	60--140
1,4-Dichlorobenzene	5.00	5.20	104	60--140
1,2-Dichloroethane	5.00	5.20	104	60--140
1,1-Dichloroethene	5.00	4.80	96	60--140
trans-1,2-Dichloroethene	5.00	4.90	98	60--140
1,2-Dichloropropane	5.00	4.70	94	60--140
Ethylbenzene	5.00	5.20	104	60--140
Tetrachloroethene	5.00	5.00	100	60--140
1,1,2-Trichloroethane	5.00	5.00	100	60--140
1,3-Dichlorobenzene	5.00	5.20	104	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.50	95	80--120
Toluene d8	10.0	11.3	113	80--120
p-Bromofluorobenzene	10.0	9.20	92	80--120

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Lab Nos. 95-33542-51

Date 05/27/95

Received by J.T. Essex

Logged in by Randa Hoelscher

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s) and associated sample custody information on receipt at the laboratory.

Chain-of-custody form completed & signed	Yes	Comments:
Chain-of-custody seal properly placed	Yes	Comments:
Chain of custody seal intact	Yes	Comments:
Signature Match, Chain-of-custody vs. Seal	Yes	Comments:
Sample received cold	Yes	Comments:
Samples received within holding time	Yes	Comments:
Samples received in proper containers and properly preserved	Yes	Comments:
Client notified about sample discrepancies		Comments:

Who: By: Date/Time:

Method of Shipment: Greyhound bus bill #1228554646

ENERGY LABORATORIES

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101	PROJECT NAME Livingston Rail Yard
SAMPLERS: (Signature) Michael McKinsey Envirocon 500 Taylor Missoula, MT 59802	

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	601						REMARKS
B St	5/25/95				140101-1412 A	1	X						
B St	5/25/95				140101-1412 B	1	X						
89-1	5/25/95				140101-1413 A	1	X						
89-1	5/25/95				140161-1413 B	1	X						
89-1	5/25/95				140101-1414 A	1	X						
89-1	5/25/95				140101-1414 B	1	X						
	5/25/95				140101-1415 A	1	X						
	5/25/95				140101-1415 B	1	X						
8	5/25/95				140101-1416 A	1	X						
8	5/25/95				140101-1416 B	1	X						
90-2B	5/26/95				140101-1417 A	1	X						
90-2B	5/26/95				140101-1417B	1	X						
89-10	5/26/95				140101-1418 A	1	X						
89-10	5/26/95				140101-1418 B	1	X						
89-10	5/26/95				140101-1419 A	1	X						

Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Michael McKinsey	8/26/95 1501				
Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	
			05/30/95 0805		

Split Samples:
[] Accepted [] Declined

1 of 7

ENVIROCON, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101

PROJECT NAME Livingston Rail Yard

SAMPLERS: (Signature) Michael McKinney

Envirocon
500 Taylor
Missoula, MT 59802

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CON-TAINERS	601							REMARKS
89-10	5/26/95				140101- 1419 B	1	X							
	5/26/95				140101 - 1420 A	1	X							
	5/26/95				140101- 1420 B	1	X							
89-6	5/26/95				140101- 1421 A	1	X							
89-6	5/26/95				140101- 1421 B	1	X							

Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Michael McKinney	5/26/95 1501				
Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Chain of Custody Seal:

Intact? [✓ yes] no Intact

Lab Personnel (receiving)

Signature: 05/30/95 @ 0805

Remarks

Split Samples:
[] Accepted [] Declined
Signature

RECEIVED JUN 2 8 1995

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

May 26, 1995

Mike McKinsey
Envirocon, Inc.
P.O. Box 8243
Missoula, MT 59807

Dear Mike:

On May 26, 1995, these samples, represented by our laboratory numbers 95-33345 through 95-33357, were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by:

ENERGY LABORATORIES
ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 01-JUN-95 12:20
Date Received: 02-JUN-95
Analysis Date: 14-JUN-1995 21:33
File: /chem/IONTRAP2.i/vc061495.b/9533994a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1398 LS-6

Lab No.: 95-33994
Report Date: 06/19/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
----------REGULATED VOLATILE ORGANIC CHEMICALS (VOC'S)----------				
Benzene	71-43-2	5	<0.50	U
Carbon Tetrachloride	56-23-5	5	<0.50	U
Chlorobenzene	108-90-7	100	<0.50	U
1,2-Dichlorobenzene	95-50-1	600	<0.50	U
1,4-Dichlorobenzene	106-46-7	75	<0.50	U
1,2-Dichloroethane	107-06-2	5	<0.50	U
1,1-Dichloroethene	75-35-4	7	<0.50	U
cis-1,2-Dichloroethene	156-59-2	70	<0.50	U
trans-1,2-Dichloroethene	156-60-5	100	<0.50	U
1,2-Dichloropropane	78-87-5	5	<0.50	U
Ethylbenzene	100-41-4	700	<0.50	U
Methylene Chloride	75-09-2	5	<0.50	U
Styrene	100-42-5	100	<0.50	U
Tetrachloroethene	127-18-4	5	<0.50	U
Toluene	108-88-3	1000	<0.50	U
1,2,4-Trichlorobenzene	120-82-1	70	<0.50	U
1,1,1-Trichloroethane	71-55-6	200	<0.50	U
1,1,2-Trichloroethane	79-00-5	5	<0.50	U
Trichloroethene	79-01-6	5	<0.50	U
Vinyl Chloride	75-01-4	2	<0.50	U
m+p-Xylenes	108383/106423		<0.50	U
o-Xylene	95-47-6		<0.50	U
Total Xylenes		10000	<0.50	U
---------------REGULATED VOC'S: TRIHALOMETHANES---------------				
Bromodichloromethane	75-27-4	Total	<0.50	U
Bromoform	75-25-2	of all	<0.50	U
Chlorodibromomethane	124-48-1	four	<0.50	U
Chloroform	67-66-3	100	<0.50	U
--------------------OTHER EPA LISTED VOC'S--------------------				
Bromobenzene	108-86-1	NR	<0.50	U
Bromochloromethane	74-97-5	NR	<0.50	U
Bromomethane	74-83-9	NR	<0.50	U
n-Butylbenzene	104-51-8	NR	<0.50	U
sec-Butylbenzene	**135-98-8**	**NR**	**1.5**	
tert-Butylbenzene	**98-06-6**	**NR**	**<0.50**	**0.18J**
Chloroethane	75-00-3	NR	<0.50	U
Chloromethane	74-87-3	NR	<0.50	U
2-Chlorotoluene	95-49-8	NR	<0.50	U
4-Chlorotoluene	106-43-4	NR	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	NA	<0.50	U

(report continued on page 2)

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
1,2-Dibromoethane	106-93-4	NA	<0.50	U
Dibromomethane	74-95-3	NR	<0.50	U
1,3-Dichlorobenzene	541-73-1	NR	<0.50	U
Dichlorodifluoromethane	75-71-8	NR	<0.50	U
1,1-Dichloroethane	75-34-3	NR	<0.50	U
1,1-Dichloropropene	563-58-6	NR	<0.50	U
1,3-Dichloropropane	142-28-9	NR	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	NR	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	NR	<0.50	U
2,2-Dichloropropane	594-20-7	NR	<0.50	U
Fluorotrichloromethane	75-69-4	NR	<0.50	U
Hexachlorobutadiene	87-68-3	NR	<0.50	U
Isopropylbenzene	**98-82-8**	**NR**	**<0.50**	**0.39J**
p-Isopropyltoluene	**99-87-6**	**NR**	**0.61**	
Naphthalene	91-20-3	NR	<0.50	U
n-Propylbenzene	**103-65-1**	**NR**	**<0.50**	**0.26J**
1,1,1,2-Tetrachloroethane	630-20-6	NR	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	NR	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	NR	<0.50	U
1,2,3-Trichloropropane	96-18-4	NR	<0.50	U
1,2,4-Trimethylbenzene	95-63-6	NR	<0.50	U
1,3,5-Trimethylbenzene	108-67-8	NR	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	10.5	105	80--120
p-Bromofluorobenzene	10.0	9.70	97	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

NR= No currently regulated amount.

NA= Not applicable to this method. Concentrations are presented for screening purposes. For regulatory compliance, analyze using EPA method 504 which has lower detection limits.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

ENERGY LABORATORIES

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Client: Envirocon, Inc.
Date Sampled: 23-MAY-95
Date Received: 26-MAY-95
Analysis Date: 02-JUN-1995 19:06
File: /chem/IONTRAP2.i/vc060295.b/9533345a.d [redacted]
Project Info: Livingston Rail Yard
Sample Info: 140101-1399, L-88-9

Lab No.: 95-33345
Report Date: 06/06/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.40	94	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ____ Reviewing Supervisor: WB

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Client: Envirocon, Inc.
Date Sampled: 23-MAY-95
Date Received: 26-MAY-95
Analysis Date: 04-JUN-1995 18:16
File: /chem/IONTRAP2.i/vc060495.b/9533346a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1400, 90-6

Lab No.: 95-33346
Report Date: 06/07/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	9.30	93	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 23-MAY-95
Date Received: 26-MAY-95
Analysis Date: 04-JUN-1995 20:03
File: /chem/IONTRAP2.i/vc060495.b/9533347a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1401, 92-4 [redacted]

Lab No.: 95-33347
Report Date: 06/07/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**34**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.8**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.70	97	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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Client: Envirocon, Inc.
Date Sampled: 23-MAY-95
Date Received: 26-MAY-95
Analysis Date: 04-JUN-1995 21:51
File: /chem/IONTRAP2.i/vc060495.b/9533348a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1402, 6

Lab No.: 95-33348
Report Date: 06/07/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**1.2**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.5	105	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	9.80	98	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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Client: Envirocon, Inc.
Date Sampled: 23-MAY-95
Date Received: 26-MAY-95
Analysis Date: 04-JUN-1995 23:37
File: /chem/IONTRAP2.i/vc060495.b/9533349a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1403, 5

Lab No.: 95-33349
Report Date: 06/07/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	0.44J
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0 50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.8	108	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: FJC Reviewing Supervisor: WTB

ENERGY LABORATORIES

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Client: Envirocon, Inc.
Date Sampled: 23-MAY-95
Date Received: 26-MAY-95
Analysis Date: 05-JUN-1995 01:21
File: /chem/IONTRAP2.i/vc060495.b/9533350a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1404, 92-3

Lab No.: 95-33350
Report Date: 06/20/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.15J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	9.10	91	80--120
p-Bromofluorobenzene	10.0	11.9	119	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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Client: Envirocon, Inc.
Date Sampled: 23-MAY-95
Date Received: 26-MAY-95
Analysis Date: 15-JUN-1995 01:24
File: /chem/IONTRAP2.i/vc061495.b/9533350b.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1404, 92-3 Duplicate (Lab)

Lab No.: 95-33350 Duplicate
Report Date: 06/15/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.22J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.90	99	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: WTB

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Client: Envirocon, Inc.
Date Sampled: 23-MAY-95
Date Received: 26-MAY-95
Analysis Date: 05-JUN-1995 02:10
File: /chem/IONTRAP2.i/vc060495.b/9533351a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1405, 92-3 Field Dup.

Lab No.: 95-33351
Report Date: 06/07/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.3	103	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: WM

ENERGY LABORATORIES

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 23-MAY-95
Date Received: 26-MAY-95
Analysis Date: 05-JUN-1995 06:16
File: /chem/IONTRAP2.i/vc060495.b/9533352a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1406, EB Equip. Blank

Lab No.: 95-33352
Report Date: 06/07/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	0.61	
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.90	99	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	10.1	101	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ____ Reviewing Supervisor: ____

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Client: Envirocon, Inc.
Date Sampled: 24-MAY-95
Date Received: 26-MAY-95
Analysis Date: 05-JUN-1995 07:04
File: /chem/IONTRAP2.i/vc060495.b/9533353a.d
Project Info: Livingston Rail Yard [redacted]
Sample Info: 140101-1407, 89-2

Lab No.: 95-33353
Report Date: 06/07/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.90	99	80--120
Toluene d8	10.0	9.50	95	80--120
p-Bromofluorobenzene	10.0	9.90	99	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: WB

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Client: Envirocon, Inc.
Date Sampled: 24-MAY-95
Date Received: 26-MAY-95
Analysis Date: 05-JUN-95 08:45
File: /chem/IONTRAP2.i/vc060495.b/9533354a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1410, 4 [redacted]

Lab No.: 95-33354
Report Date: 06/07/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.3	103	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: WM

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Client: Envirocon, Inc.
Date Sampled: 24-MAY-95
Date Received: 26-MAY-95
Analysis Date: 05-JUN-95 09:36
File: /chem/IONTRAP2.i/vc060495.b/9533355a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1411, 7 [redacted]

Lab No.: 95-33355
Report Date: 06/07/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**<0.50**	**0.22J**
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**9.6**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**<0.50**	**0.35J**
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.90	99	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	10.1	101	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

Quality Control Sample: Laboratory Reagent Blank 02-JUN-1995 09:44
Report Date: 06/06/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060295.b/blk0602aa.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.70	87	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	9.70	97	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ____ Reviewing Supervisor: ____

Quality Control Sample: Laboratory Reagent Blank 04-JUN-1995 17:24
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060495.b/blk0604a.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624

VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst:______ Reviewing Supervisor:______

Quality Control Sample: Laboratory Reagent Blank 05-JUN-1995 00:30
Report Date: 06/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060495.b/blk0604e.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-37-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.80	98	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: WTB

EPA METHOD 624 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 04-JUN-1995 16:34
Report Date: 06/07/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060495.b/qcs0604a.d

Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Added	Measured	%Rec	QC Limits
Carbon Tetrachloride	5.00	4.80	96	60--140
Chlorobenzene	5.00	5.40	108	60--140
1,4-Dichlorobenzene	5.00	5.00	100	60--140
1,2-Dichloroethane	5.00	5.30	106	60--140
1,1-Dichloroethene	5.00	4.90	98	60--140
trans-1,2-Dichloroethene	5.00	4.90	98	60--140
1,2-Dichloropropane	5.00	4.40	88	60--140
Ethylbenzene	5.00	5.00	100	60--140
Tetrachloroethene	5.00	4.80	96	60--140
1,1,2-Trichloroethane	5.00	5.30	106	60--140
1,3-Dichlorobenzene	5.00	4.80	96	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.90	99	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	9.80	98	80--120

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 15-JUN-95 14:10
Lab No.: 95-33351
Report Date: 06/15/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc061595.b/9533351s.d
Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	5.00	<0.500	5.40	108	60--140
1,1-Dichloroethene	5.00	<0.500	4.70	94	60--140
Tetrachloroethane	5.00	<0.500	5.20	104	60--140
Trichloroethene	5.00	<0.500	4.90	98	60--140

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 24-MAY-95
Date Received: 26-MAY-95
Analysis Date: 05-JUN-1995 14:12
File: /chem/IONTRAP2.i/vc060595.b/9533356a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1408, L-87-4

Lab No.: 95-33356
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
----------REGULATED VOLATILE ORGANIC CHEMICALS (VOC'S)-----------				
Benzene	71-43-2	5	<0.50	U
Carbon Tetrachloride	56-23-5	5	<0.50	U
Chlorobenzene	108-90-7	100	<0.50	U
1,2-Dichlorobenzene	95-50-1	600	<0.50	U
1,4-Dichlorobenzene	106-46-7	75	<0.50	U
1,2-Dichloroethane	107-06-2	5	<0.50	U
1,1-Dichloroethene	75-35-4	7	<0.50	U
cis-1,2-Dichloroethene	156-59-2	70	<0.50	U
trans-1,2-Dichloroethene	156-60-5	100	<0.50	U
1,2-Dichloropropane	78-87-5	5	<0.50	U
Ethylbenzene	100-41-4	700	<0.50	U
Methylene Chloride	75-09-2	5	<0.50	U
Styrene	100-42-5	100	<0.50	U
Tetrachloroethene	127-18-4	5	<0.50	U
Toluene	108-88-3	1000	<0.50	U
1,2,4-Trichlorobenzene	120-82-1	70	<0.50	U
1,1,1-Trichloroethane	71-55-6	200	<0.50	U
1,1,2-Trichloroethane	79-00-5	5	<0.50	U
Trichloroethene	79-01-6	5	<0.50	U
Vinyl Chloride	75-01-4	2	<0.50	U
m+p-Xylenes	108383/106423		<0.50	U
o-Xylene	95-47-6		<0.50	U
Total Xylenes		10000	<0.50	U
----------------REGULATED VOC'S: TRIHALOMETHANES----------------				
Bromodichloromethane	75-27-4	Total	<0.50	U
Bromoform	75-25-2	of all	<0.50	U
Chlorodibromomethane	124-48-1	four	<0.50	U
Chloroform	67-66-3	100	<0.50	U
---------------------OTHER EPA LISTED VOC'S---------------------				
Bromobenzene	108-86-1	NR	<0.50	U
Bromochloromethane	74-97-5	NR	<0.50	U
Bromomethane	74-83-9	NR	<0.50	U
n-Butylbenzene	104-51-8	NR	<0.50	U
sec-Butylbenzene	135-98-8	NR	<0.50	U
tert-Butylbenzene	98-06-6	NR	<0.50	U
Chloroethane	75-00-3	NR	<0.50	U
Chloromethane	74-87-3	NR	<0.50	U
2-Chlorotoluene	95-49-8	NR	<0.50	U
4-Chlorotoluene	106-43-4	NR	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	NA	<0.50	U

(report continued on page 2)

Lab No.: 95-33356
Sample Info: 140101-1408, L-87-4

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
1,2-Dibromoethane	106-93-4	NA	<0.50	U
Dibromomethane	74-95-3	NR	<0.50	U
1,3-Dichlorobenzene	541-73-1	NR	<0.50	U
Dichlorodifluoromethane	75-71-8	NR	<0.50	U
1,1-Dichloroethane	75-34-3	NR	<0.50	U
1,1-Dichloropropene	563-58-6	NR	<0.50	U
1,3-Dichloropropane	142-28-9	NR	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	NR	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	NR	<0.50	U
2,2-Dichloropropane	594-20-7	NR	<0.50	U
Fluorotrichloromethane	75-69-4	NR	<0.50	U
Hexachlorobutadiene	87-68-3	NR	<0.50	U
Isopropylbenzene	98-82-8	NR	<0.50	U
p-Isopropyltoluene	99-87-6	NR	<0.50	U
Naphthalene	91-20-3	NR	<0.50	U
n-Propylbenzene	103-65-1	NR	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	NR	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	NR	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	NR	<0.50	U
1,2,3-Trichloropropane	96-18-4	NR	<0.50	U
1,2,4-Trimethylbenzene	95-63-6	NR	<0.50	U
1,3,5-Trimethylbenzene	108-67-8	NR	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.60	96	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

NR= No currently regulated amount.

NA= Not applicable to this method. Concentrations are presented for screening purposes. For regulatory compliance, analyze using EPA method 504 which has lower detection limits.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

ENERGY LABORATORIES
ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 24-MAY-95
Date Received: 26-MAY-95
Analysis Date: 05-JUN-1995 14:58
File: /chem/IONTRAP2.i/vc060595.b/9533357a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1409, L-87-7

Lab No.: 95-33357
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
----------REGULATED VOLATILE ORGANIC CHEMICALS (VOC'S)----------				
Benzene	**71-43-2**	5	<0.50	0.35J
Carbon Tetrachloride	56-23-5	5	<0.50	U
Chlorobenzene	108-90-7	100	<0.50	U
1,2-Dichlorobenzene	95-50-1	600	<0.50	U
1,4-Dichlorobenzene	106-46-7	75	<0.50	U
1,2-Dichloroethane	107-06-2	5	<0.50	U
1,1-Dichloroethene	75-35-4	7	<0.50	U
cis-1,2-Dichloroethene	156-59-2	70	<0.50	U
trans-1,2-Dichloroethene	156-60-5	100	<0.50	U
1,2-Dichloropropane	78-87-5	5	<0.50	U
Ethylbenzene	**100-41-4**	**700**	**4.6**	
Methylene Chloride	75-09-2	5	<0.50	U
Styrene	100-42-5	100	<0.50	U
Tetrachloroethene	127-18-4	5	<0.50	U
Toluene	108-88-3	1000	<0.50	U
1,2,4-Trichlorobenzene	120-82-1	70	<0.50	U
1,1,1-Trichloroethane	71-55-6	200	<0.50	U
1,1,2-Trichloroethane	79-00-5	5	<0.50	U
Trichloroethene	79-01-6	5	<0.50	U
Vinyl Chloride	75-01-4	2	<0.50	U
m+p-Xylenes	108383/106423		<0.50	U
o-Xylene	**95-47-6**		**1.6**	
Total Xylenes		10000	**1.6**	
----------REGULATED VOC'S: TRIHALOMETHANES----------				
Bromodichloromethane	75-27-4	Total	<0.50	U
Bromoform	75-25-2	of all	<0.50	U
Chlorodibromomethane	124-48-1	four	<0.50	U
Chloroform	67-66-3	100	<0.50	U
----------OTHER EPA LISTED VOC'S----------				
Bromobenzene	108-86-1	NR	<0.50	U
Bromochloromethane	74-97-5	NR	<0.50	U
Bromomethane	74-83-9	NR	<0.50	U
n-Butylbenzene	**104-51-8**	**NR**	**1.6**	
sec-Butylbenzene	**135-98-8**	**NR**	**4.4**	
tert-Butylbenzene	98-06-6	NR	<0.50	U
Chloroethane	75-00-3	NR	<0.50	U
Chloromethane	74-87-3	NR	<0.50	U
2-Chlorotoluene	**95-49-8**	**NR**	**0.95**	
4-Chlorotoluene	106-43-4	NR	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	NA	<0.50	U

(report continued on page 2)

Lab No.: 95-33357

Sample Info: 140101-1409, L-87-7

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
1,2-Dibromoethane	106-93-4	NA	<0.50	U
Dibromomethane	74-95-3	NR	<0.50	U
1,3-Dichlorobenzene	541-73-1	NR	<0.50	U
Dichlorodifluoromethane	75-71-8	NR	<0.50	U
1,1-Dichloroethane	75-34-3	NR	<0.50	U
1,1-Dichloropropene	563-58-6	NR	<0.50	U
1,3-Dichloropropane	142-28-9	NR	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	NR	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	NR	<0.50	U
2,2-Dichloropropane	594-20-7	NR	<0.50	U
Fluorotrichloromethane	75-69-4	NR	<0.50	U
Hexachlorobutadiene	87-68-3	NR	<0.50	U
Isopropylbenzene	**98-82-8**	**NR**	**4.8**	
p-Isopropyltoluene	99-87-6	NR	<0.50	U
Naphthalene	**91-20-3**	**NR**	**19**	
n-Propylbenzene	**103-65-1**	**NR**	**2.1**	
1,1,1,2-Tetrachloroethane	630-20-6	NR	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	NR	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	NR	<0.50	U
1,2,3-Trichloropropane	96-18-4	NR	<0.50	U
1,2,4-Trimethylbenzene	**95-63-6**	**NR**	**8.7**	
1,3,5-Trimethylbenzene	108-67-8	NR	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.60	96	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	9.00	90	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

NR= No currently regulated amount.

NA= Not applicable to this method. Concentrations are presented for screening purposes. For regulatory compliance, analyze using EPA method 504 which has lower detection limits.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Quality Control Sample: Laboratory Reagent Blank 05-JUN-1995 11:40
Report Date: 06/08/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc060595.b/blk0605b.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
----------REGULATED VOLATILE ORGANIC CHEMICALS (VOC'S)-----------				
Benzene	71-43-2	5	<0.50	U
Carbon Tetrachloride	56-23-5	5	<0.50	U
Chlorobenzene	108-90-7	100	<0.50	U
1,2-Dichlorobenzene	95-50-1	600	<0.50	U
1,4-Dichlorobenzene	106-46-7	75	<0.50	U
1,2-Dichloroethane	107-06-2	5	<0.50	U
1,1-Dichloroethene	75-35-4	7	<0.50	U
cis-1,2-Dichloroethene	156-59-2	70	<0.50	U
trans-1,2-Dichloroethene	156-60-5	100	<0.50	U
1,2-Dichloropropane	78-87-5	5	<0.50	U
Ethylbenzene	100-41-4	700	<0.50	U
Methylene Chloride	75-09-2	5	<0.50	U
Styrene	100-42-5	100	<0.50	U
Tetrachloroethene	127-18-4	5	<0.50	U
Toluene	108-88-3	1000	<0.50	U
1,2,4-Trichlorobenzene	120-82-1	70	<0.50	U
1,1,1-Trichloroethane	71-55-6	200	<0.50	U
1,1,2-Trichloroethane	79-00-5	5	<0.50	U
Trichloroethene	79-01-6	5	<0.50	U
Vinyl Chloride	75-01-4	2	<0.50	U
m+p-Xylenes	108383/106423		<0.50	U
o-Xylene	95-47-6		<0.50	U
Total Xylenes		10000	<0.50	U
----------------REGULATED VOC'S: TRIHALOMETHANES----------------				
Bromodichloromethane	75-27-4	Total	<0.50	U
Bromoform	75-25-2	of all	<0.50	U
Chlorodibromomethane	124-48-1	four	<0.50	U
Chloroform	67-66-3	100	<0.50	U
---------------------OTHER EPA LISTED VOC'S---------------------				
Bromobenzene	108-86-1	NR	<0.50	U
Bromochloromethane	74-97-5	NR	<0.50	U
Bromomethane	74-83-9	NR	<0.50	U
n-Butylbenzene	104-51-8	NR	<0.50	U
sec-Butylbenzene	135-98-8	NR	<0.50	U
tert-Butylbenzene	98-06-6	NR	<0.50	U
Chloroethane	75-00-3	NR	<0.50	U
Chloromethane	74-87-3	NR	<0.50	U
2-Chlorotoluene	95-49-8	NR	<0.50	U
4-Chlorotoluene	106-43-4	NR	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	NA	<0.50	U

(report continued on page 2)

EPA METHOD 524.2
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	EPA MCL	RESULT	QUALIFIER
1,2-Dibromoethane	106-93-4	NA	<0.50	U
Dibromomethane	74-95-3	NR	<0.50	U
1,3-Dichlorobenzene	541-73-1	NR	<0.50	U
Dichlorodifluoromethane	75-71-8	NR	<0.50	U
1,1-Dichloroethane	75-34-3	NR	<0.50	U
1,1-Dichloropropene	563-58-6	NR	<0.50	U
1,3-Dichloropropane	142-28-9	NR	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	NR	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	NR	<0.50	U
2,2-Dichloropropane	594-20-7	NR	<0.50	U
Fluorotrichloromethane	75-69-4	NR	<0.50	U
Hexachlorobutadiene	87-68-3	NR	<0.50	U
Isopropylbenzene	98-82-8	NR	<0.50	U
p-Isopropyltoluene	99-87-6	NR	<0.50	U
Naphthalene	91-20-3	NR	<0.50	U
n-Propylbenzene	103-65-1	NR	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	NR	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	NR	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	NR	<0.50	U
1,2,3-Trichloropropane	96-18-4	NR	<0.50	U
1,2,4-Trimethylbenzene	95-63-6	NR	<0.50	U
1,3,5-Trimethylbenzene	108-67-8	NR	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

NR= No currently regulated amount.

NA= Not applicable to this method. Concentrations are presented for screening purposes. For regulatory compliance, analyze using EPA method 504 which has lower detection limits.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Lab Nos. 95-33345-57

Date 05/26/95

Received by Randa Hoelscher

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s) and associated sample custody information on receipt at the laboratory.

Chain-of-custody form completed & signed	Yes	Comments:
Chain-of-custody seal properly placed	Yes	Comments:
Chain-of-custody seal intact	Yes	Comments:
Signature Match, Chain-of-custody vs. Seal	Yes	Comments:
Sample received cold	Yes	Comments:
Samples received within holding time	Yes	Comments:
Samples received in proper containers and properly preserved	Yes	Comments:
Client notified about sample discrepancies		Comments:

Who:__________ By:__________ Date/Time:__________

Method of Shipment Greyhound bus bill: 1228554580

ENVIROCON, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101

PROJECT NAME Livingston Rail Yard

SAMPLERS: (Signature) Michael McKinney
Envirocon
500 Taylor
Missoula MT 59802

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8260 Long List	REMARKS
L-88-9	5/23/95				140101 -1399 A	1	X	Please hold all samples.
L-88-9	5/23/95				140101 - 1399 B	1	X	Will call on 5/26/95 to
90-6	5/23/95				140101 - 1400 A	1	X	confirm desired analysis.
90-6	5/23/95				140101 - 1400 B	1	X	
92-4	5/23/95				140101 - 1401 A	1	X	
92-4	5/23/95				140101 - 1401 B	1	X	
6	5/23/95				140101 - 1402 A	1	X	
6	5/23/95				140101 - 1402 B	1	X	
5	5/23/95				140101 - 1403 A	1	X	
5	5/23/95				140101 - 1403 B	1	X	
92-3	5/23/95				140101 - 1404 A	1	X	
92-3	5/23/95				140101 - 1404 B	1	X	
92-3	5/23/95				140101 - 1405 A	1	X	
92-3	5/23/95				140101 - 1405 B	1	X	
	5/23/95				140101 - 1406 A	1	X	

Relinquished (Signature)	Date/Time		Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Michael McKinney	5/25/95	1330				
Relinquished (Signature)	Date/Time		Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Chain of Custody Seal:

Intact? [✓ yes]/no No Seal Intact LH

Lab Personnel (receiving)

Signature: Linda Hoelscher

Remarks Run 601 instead of 8260 per Mike McKinney message 05/26/95 @ 1015 LH

Split Samples:
[] Accepted [] Declined ______ Signature

1 of 2

ENVIROCON, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO. 14 0101

PROJECT NAME Livingston Rail Yard

SAMPLERS: (Signature) Michael McKinney
Envirocon
500 Taylor
Missoula MT 59802

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8260 Long List	524.2					REMARKS
	5/23/95				140101-1406 B	1	X						Please Hold all samples.
89-2	5/24/95				140101-1407 A	1	X						Will call on 5/26/95 to
89-2	5/24/95				140101-1407 B	1	X						confirm desired analysis.
L-87-4	5/24/95				140101-1408 A	1		X					
L-87-4	5/24/95				140101-1408 B	1		X					
L-87-7	5/24/95				140101-1409 A	1		X					
L-87-7	5/24/95				140101-1409 B	1		X					
4	5/24 95				140101-1410 A	1	X						
4	5/24/95				140101-1410 B	1	X						
7	5/24/95				140101-1411 A	1	X						
7	5/24/95				140101-1411 B	1	X						

Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Michael McKinney	5/25/95 1330				
Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Chain of Custody Seal:
Intact? [✓ yes] [✓ no] No Seal Intact AH

Lab Personnel (receiving)
Signature: Linda Holleschen

Remarks

Split Samples:

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

RECEIVED
MAR 28 1995
ENVIROCON, Inc.
Livingston, Mt.

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MAR 28 1995
ENVIROCON, Inc.
Livingston, Mt.

March 24, 1995

H. Crowell Herrick
Envirocon, Inc.
P.O. Box 1332
Bozeman, MT 59771

On March 3, 1995, these samples, represented by our laboratory numbers 95-20264-89, were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by:

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ENERGY LABORATORIES, INC.
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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 10:20
Date Received: 03-MAR-95
Analysis Date: 08-MAR-1995 18:50
File: /chem/IONTRAP2.i/vc030895.b/9520264a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1377

Lab No.: 95-20264
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

90-6

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 11:25
Date Received: 03-MAR-95
Analysis Date: 08-MAR-1995 19:37
File: /chem/IONTRAP2.i/vc030895.b/9520265a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1378

Lab No.: 95-20265
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

#5

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.52**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	10.9	109	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC

Reviewing Supervisor: WJH

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 12:00
Date Received: 03-MAR-95
Analysis Date: 13-MAR-1995 14:02
File: /chem/IONTRAP2.i/vc031395.b/9520266a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1379

Lab No.: 95-20266
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

L-88-10

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**9.3**	
1,2-Dichlorobenzene	**95-50-1**	**0.74**	
1,4-Dichlorobenzene	**106-46-7**	**1.2**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**36**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**0.60**	
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**56**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**11**	
Vinyl Chloride	**75-01-4**	**0.98**	
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	**95-49-8**	**1.1**	
1,3-Dichlorobenzene	**541-73-1**	**<0.50**	0.25J
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.00	80	80--120
Toluene d8	10.0	11.3	113	80--120
p-Bromofluorobenzene	10.0	10.9	109	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times diltution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 13:28
Date Received: 03-MAR-95
Analysis Date: 08-MAR-1995 21:11
File: /chem/IONTRAP2.i/vc030895.b/9520267a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1380

Lab No.: 95-20267
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

L-87-8

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**3.2**	
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	0.16J
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**9.1**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**19**	**D**
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**<0.50**	0.11J
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	8.90	89	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: HJc Reviewing Supervisor:

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 14:35
Date Received: 03-MAR-95
Analysis Date: 08-MAR-1995 23:29
File: /chem/IONTRAP2.i/vc030895.b/9520269a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1382

Lab No.: 95-20269
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

L-87-5

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**<0.50**	**0.48J**
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**82**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.5**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.70	97	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	11.3	113	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 15:41
Date Received: 03-MAR-95
Analysis Date: 09-MAR-1995 00:14
File: /chem/IONTRAP2.i/vc030895.b/9520270a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1383

Lab No.: 95-20270
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

Equip. Blank

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	0.20J
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.70	97	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______

Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 15:41
Date Received: 03-MAR-95
Analysis Date: 13-MAR-1995 20:10
File: /chem/IONTRAP2.i/vc031395.b/9520270b.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1383

Lab No.: 95-20270 Duplicate
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

Equip. Blank
Lab. Dup.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**<0.50**	0.20J
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.50	95	80--120
Toluene d8	10.0	11.0	110	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

ENERGY LABORATORIES

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 15:49
Date Received: 03-MAR-95
Analysis Date: 13-MAR-1995 15:00
File: /chem/IONTRAP2.i/vc031395.b/9520271a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1384

Lab No.: 95-20271
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

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EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.61**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.40	84	80--120
Toluene d8	10.0	11.2	112	80--120
p-Bromofluorobenzene	10.0	10.9	109	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 16:07
Date Received: 03-MAR-95
Analysis Date: 10-MAR-1995 19:52
File: /chem/IONTRAP2.i/vc031095.b/9520272a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1385

Lab No.: 95-20272
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

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EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.50	95	80--120
Toluene d8	10.0	10.9	109	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HGC Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 17:05
Date Received: 03-MAR-95
Analysis Date: 09-MAR-1995 01:43
File: /chem/IONTRAP2.i/vc030895.b/9520273a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1386

Lab No.: 95-20273
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

92-2

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**3.0**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**37**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.4**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.70	97	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	11.2	112	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 17:05
Date Received: 03-MAR-95
Analysis Date: 09-MAR-1995 02:28
File: /chem/IONTRAP2.i/vc030895.b/9520274a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1387

Lab No.: 95-20274
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

92-2 Dup.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**2.9**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**28**	D
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.4**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.60	96	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	11.1	111	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 17:45
Date Received: 03-MAR-95
Analysis Date: 10-MAR-1995 20:35
File: /chem/IONTRAP2.i/vc031095.b/9520275a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1388

Lab No.: 95-20275
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

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EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**<0.50**	0.10J
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**32**	**D**
1,1,1-Trichloroethane	**71-55-6**	**<0.50**	0.11J
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.3**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.30	93	80--120
Toluene d8	10.0	10.9	109	80--120
p-Bromofluorobenzene	10.0	10.1	101	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 01-MAR-95 18:48
Date Received: 03-MAR-95
Analysis Date: 10-MAR-1995 22:00
File: /chem/IONTRAP2.i/vc031095.b/9520276a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1389

Lab No.: 95-20276
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

89-9

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**0.50**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**85**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.9**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.00	90	80--120
Toluene d8	10.0	10.9	109	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.

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Client: Envirocon, Inc.
Date Sampled: 02-MAR-95 09:03
Date Received: 03-MAR-95
Analysis Date: 10-MAR-1995 22:42
File: /chem/IONTRAP2.i/vc031095.b/9520277a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1390

Lab No.: 95-20277
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624

89-3

VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**203**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.2**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.10	91	80--120
Toluene d8	10.0	11.0	110	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 50 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 02-MAR-95 10:39
Date Received: 03-MAR-95
Analysis Date: 11-MAR-1995 00:08
File: /chem/IONTRAP2.i/vc031095.b/9520278a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1391

Lab No.: 95-20278
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

94-2

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.57**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	10.9	109	80--120
p-Bromofluorobenzene	10.0	9.90	99	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor:

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Client: Envirocon, Inc.
Date Sampled: 02-MAR-95 10:39
Date Received: 03-MAR-95
Analysis Date: 13-MAR-1995 20:52
File: /chem/IONTRAP2.i/vc031395.b/9520278b.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1391

Lab No.: 95-20278 Duplicate
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

94-2
Lab. Dup.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.33J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.30	93	80--120
Toluene d8	10.0	11.0	110	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: HTC 3/13 Reviewing Supervisor:

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Client: Envirocon, Inc.
Date Sampled: 02-MAR-95 11:32
Date Received: 03-MAR-95
Analysis Date: 11-MAR-1995 00:50
File: /chem/IONTRAP2.i/vc031095.b/9520279a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1392

Lab No.: 95-20279
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

94-1

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**2.5**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0 50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.30	93	80--120
Toluene d8	10.0	11.1	111	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 02-MAR-95 12:30
Date Received: 03-MAR-95
Analysis Date: 11-MAR-1995 02:15
File: /chem/IONTRAP2.i/vc031095.b/9520280a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1393

Lab No.: 95-20280
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

LS-11

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**19**	**D**
1,2-Dichlorobenzene	**95-50-1**	**<0.50**	**0.44J**
1,4-Dichlorobenzene	**106-46-7**	**12**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**15**	
trans-1,2-Dichloroethene	**156-60-5**	**0.75**	
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**33**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**7.9**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	**541-73-1**	**0.76**	
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	11.0	110	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

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Client: Envirocon, Inc.
Date Sampled: 02-MAR-95 15:45
Date Received: 03-MAR-95
Analysis Date: 11-MAR-1995 02:56
File: /chem/IONTRAP2.i/vc031095.b/9520281a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1394

Lab No.: 95-20281
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

L-87-3

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**<0.50**	**0.21J**
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	**106-46-7**	**<0.50**	**0.13J**
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**16**	
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	**0.42J**
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**92**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**8.5**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.90	89	80--120
Toluene d8	10.0	10.7	107	80--120
p-Bromofluorobenzene	10.0	11.1	111	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
D= Value derived from a 20 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: HGC Reviewing Supervisor: WD

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Client: Envirocon, Inc.
Date Sampled: 02-MAR-95 15:45
Date Received: 03-MAR-95
Analysis Date: 11-MAR-1995 19:44
File: /chem/IONTRAP2.i/vc031195.b/9520282a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1395

Lab No.: 95-20282
Report Date: 03/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER

L-87-3 Dup.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**16**	
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	**0.41J**
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**89**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**8.2**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.30	93	80--120
Toluene d8	10.0	11.3	113	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: WM

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Client: Envirocon, Inc.
Date Sampled: 02-MAR-95 16:43
Date Received: 03-MAR-95
Analysis Date: 11-MAR-1995 21:08
File: /chem/IONTRAP2.i/vc031195.b/9520283a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1396

Lab No.: 95-20283
Report Date: 03/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER

89-4

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**<0.50**	**0.44J**
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**139**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.8**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.90	89	80--120
Toluene d8	10.0	11.0	110	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 02-MAR-95 17:27
Date Received: 03-MAR-95
Analysis Date: 11-MAR-1995 22:29
File: /chem/IONTRAP2.i/vc031195.b/9520284a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1397

Lab No.: 95-20284
Report Date: 03/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER

92-1

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	80	D
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	<0.50	0.10J
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.80	88	80--120
Toluene d8	10.0	10.7	107	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: HGC Reviewing Supervisor:

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Quality Control Sample: Laboratory Reagent Blank 08-MAR-1995 18:03
Report Date: 03/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc030895.b/blk0308e.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropen	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor:

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Quality Control Sample: Laboratory Reagent Blank 10-MAR-1995 19:08
Report Date: 03/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc031095.b/blk0310g.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.40	94	80--120
Toluene d8	10.0	11.0	110	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC

Reviewing Supervisor: WTB

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Quality Control Sample: Laboratory Reagent Blank 11-MAR-95 15:01
Report Date: 03/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc031195.b/blk0311d.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.80	98	80--120
Toluene d8	10.0	11.1	111	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: WMB

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Quality Control Sample: Laboratory Reagent Blank 13-MAR-95 10:02
Report Date: 03/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc031395.b/blk0313a.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.40	94	80--120
Toluene d8	10.0	10.8	108	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HGC Reviewing Supervisor: WTB

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Quality Control Sample: Laboratory Reagent Blank 13-MAR-1995 19:28
Report Date: 03/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc031395.b/blk0313d.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.40	94	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 14-MAR-1995 03:14
Lab No.: 95-20281
Report Date: 03/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc031395.b/9520281s.d

Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	100	<1.0	99.1	99	60--140
1,1-Dichloroethene	100	<1.0	112	112	60--140
Tetrachloroethene	100	91.9	202	110	60--140
Trichloroethene	100	8.50	111	103	60--140

Note: The sample was diluted 20 times before spiking

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EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 13-MAR-1995 22:26
Lab No.: 95-20266
Report Date: 03/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc031395.b/9520266s.d
Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	50.0	9.30	58.4	98	60--140
1,1-Dichloroethene	50.0	<1.00	52.5	105	60--140
Tetrachloroethene	50.0	56.2	104	96	60--140
Trichloroethene	50.0	10.8	59.2	97	60--140

Note: The sample was diluted 20 times before spiking.

ENERGY LABORATORIES

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EPA METHOD 624 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 09-MAR-95 15:54
Report Date: 03/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc030995.b/qcs0309a.d

Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Added	Measured	%Rec	QC Limits
Carbon Tetrachloride	5.00	5.00	100	60--140
Chlorobenzene	5.00	4.80	96	60--140
1,4-Dichlorobenzene	5.00	4.90	98	60--140
1,2-Dichloroethane	5.00	5.20	104	60--140
1,1-Dichloroethene	5.00	4.80	96	60--140
trans-1,2-Dichloroethene	5.00	4.90	98	60--140
1,2-Dichloropropane	5.00	5.20	104	60--140
Ethylbenzene	5.00	4.60	92	60--140
Tetrachloroethene	5.00	5.20	104	60--140
1,1,2-Trichloroethane	5.00	5.10	102	60--140
1,3-Dichlorobenzene	5.00	5.00	100	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	10.9	109	80--120
p-Bromofluorobenzene	10.0	9.90	99	80--120

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

ENVIROCON, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101	PROJECT NAME LIVINGSTON RAILYARD	
SAMPLERS: (*Signature*) H. Crowell Herrick		

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CON-TAINERS	621						REMARKS
	3/1/95	1046			140101 - 1377	2	AB						
		1125			140101 - 1378	2	AB						
		1230			140101 - 1379	2	AB						
		1323			140101 - 1380	2	AB						
		1403			140101 - 1381	2	AB						
		1435			140101 - 1382	2	AB						
		1541			140101 - 1383	2	AB						
		1549			140101 - 1384	2	AB						
		1607			140101 - 1385	2	AB						
		1705			140101 - 1386	2	AB						
		1705			140101 - 1387	2	AB						
		1745			140101 - 1388	2	AB						
	↓	1848			140101 - 1389	2	AB						

Relinquished (*Signature*) H. Crowell Herrick	Date/Time 3/2/95 2100	Received by: (*Signature*)	Relinquished by: (*Signature*)	Date/Time	Received by: (*Signature*)
Relinquished (*Signature*)	Date/Time	Received by: (*Signature*)	Relinquished by: (*Signature*)	Date/Time	Received by: (*Signature*)

Chain of Custody Seal: 03/03/95 @ 1025

Intact? [✓ yes]/no) ______

Lab Personnel (receiving)

Signature: ______

Remarks

Split Samples:
[] Accepted [] Declined ______
Signature

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FAX (406) 252-6069 • 1-800-735-4489

RECEIVED
DEC 23 [illegible]
ENVIROCON, Inc.
Livingston, Mt.

December 16, 1994

H. Crowell Herrick
Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

On November 28, 1994, these samples, represented by our laboratory numbers 94-58294 through 94-58317 were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by: Deborah A. Grimm

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 08:55
Date Received: 28-NOV-94
Analysis Date: 03-DEC-1994 22:33
File: /chem/IONTRAP2.i/vc120394.b/9458294a.d
Project Info: Livingston Railyard
Sample Info: 140101-1352

Lab No.: 94-58294
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

#6

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**1.4**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.00	80	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

✓

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 09:30
Date Received: 28-NOV-94
Analysis Date: 03-DEC-1994 23:15
File: /chem/IONTRAP2.i/vc120394.b/9458295a.d
Project Info: Livingston Railyard
Sample Info: 140101-1353

Lab No.: 94-58295
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

#5

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.63**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.20	82	80--120
Toluene d8	10.0	10.3	103	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 10:20
Date Received: 28-NOV-94
Analysis Date: 04-DEC-1994 00:39
File: /chem/IONTRAP2.i/vc120394.b/9458296a.d
Project Info: Livingston Railyard
Sample Info: 140101-1354

Lab No.: 94-58296
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

#2

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.73**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.20	82	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

✓

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 10:50
Date Received: 28-NOV-94
Analysis Date: 04-DEC-1994 01:20
File: /chem/IONTRAP2.i/vc120394.b/9458297a.d
Project Info: Livingston Railyard
Sample Info: 140101-1355

Lab No.: 94-58297
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

#1

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.48J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.00	90	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 11:35
Date Received: 28-NOV-94
Analysis Date: 04-DEC-1994 02:43
File: /chem/IONTRAP2.i/vc120394.b/9458298a.d
Project Info: Livingston Railyard
Sample Info: 140101-1356

Lab No.: 94-58298
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

90-6

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.60	86	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:
U= Indicated compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 12:10
Date Received: 28-NOV-94
Analysis Date: 04-DEC-1994 03:24
File: /chem/IONTRAP2.i/vc120394.b/9458299a.d
Project Info: Livingston Railyard
Sample Info: 140101-1357

Lab No.: 94-58299
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

92-4

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**3.5**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.0**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.90	89	80--120
Toluene d8	10.0	10.7	107	80--120
p-Bromofluorobenzene	10.0	11.4	114	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 12:48
Date Received: 28-NOV-94
Analysis Date: 03-DEC-1994 14:32
File: /chem/IONTRAP2.i/vc120394.b/9458300a.d
Project Info: Livingston Railyard
Sample Info: 140101-1358

Lab No.: 94-58300
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER

89-2

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	**106-46-7**	**1.0**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	**541-73-1**	**1.0**	
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.60	86	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.1	101	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor:

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 12:48
Date Received: 28-NOV-94
Analysis Date: 08-DEC-1994 18:38
File: /chem/IONTRAP2.i/vc120894.b/9458300b.d
Project Info: Livingston Railyard
Sample Info: 140101-1358

Lab No.: 94-58300 Duplicate
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER

89-2

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	**106-46-7**	**<0.50**	**0.31J**
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	**541-73-1**	**<0.50**	**0.29J**
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.70	97	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 12:48
Date Received: 28-NOV-94
Analysis Date: 03-DEC-1994 15:17
File: /chem/IONTRAP2.i/vc120394.b/9458301a.d
Project Info: Livingston Railyard
Sample Info: 140101-1359

Lab No.: 94-58301
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

~~i-87-3~~
89-2

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.50	85	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 14:14
Date Received: 28-NOV-94
Analysis Date: 03-DEC-1994 16:49
File: /chem/IONTRAP2.i/vc120394.b/9458302a.d
Project Info: Livingston Railyard
Sample Info: 140101-1360

Lab No.: 94-58302
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

L-87-3

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**8.9**	
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	0.28J
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**92**	D
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**7.5**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.60	86	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	9.80	98	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 14:41
Date Received: 28-NOV-94
Analysis Date: 03-DEC-1994 17:33
File: /chem/IONTRAP2.i/vc120394.b/9458303a.d
Project Info: Livingston Railyard
Sample Info: 140101-1361

Lab No.: 94-58303
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

89-4

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**0.53**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**121**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.8**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.30	83	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 15:12
Date Received: 28-NOV-94
Analysis Date: 03-DEC-1994 19:00
File: /chem/IONTRAP2.i/vc120394.b/9458304a.d
Project Info: Livingston Railyard
Sample Info: 140101-1362

Lab No.: 94-58304
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

LS-11

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**73**	**D**
1,2-Dichlorobenzene	**95-50-1**	**0.73**	
1,4-Dichlorobenzene	**106-46-7**	**26**	**D**
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**17**	
trans-1,2-Dichloroethene	**156-60-5**	**3.2**	
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**7.1**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**7.7**	
Vinyl Chloride	**75-01-4**	**<0.50**	**0.43J**
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	**541-73-1**	**2.0**	
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.30	83	80--120
Toluene d8	10.0	10.4	104	80--120
p-Bromofluorobenzene	10.0	9.70	97	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 15:41
Date Received: 28-NOV-94
Analysis Date: 03-DEC-1994 19:43
File: /chem/IONTRAP2.i/vc120394.b/9458305a.d
Project Info: Livingston Railyard
Sample Info: 140101-1363

Lab No.: 94-58305
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

92-2

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**0.84**	
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	**106-46-7**	**<0.50**	**0.43J**
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**2.6**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**29**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.4**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.10	81	80--120
Toluene d8	10.0	10.4	104	80--120
p-Bromofluorobenzene	10.0	9.90	99	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

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Client: Envirocon, Inc.
Date Sampled: 22-NOV-94 16:16
Date Received: 28-NOV-94
Analysis Date: 05-DEC-1994 14:35
File: /chem/IONTRAP2.i/vc120594.b/9458306a.d
Project Info: Livingston Railyard
Sample Info: 140101-1364

Lab No.: 94-58306
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

L-87-5

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.1**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**77**	D
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.4**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: FJC Reviewing Supervisor:

ENERGY LABORATORIES

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 08:45
Date Received: 28-NOV-94
Analysis Date: 05-DEC-1994 15:29
File: /chem/IONTRAP2.i/vc120594.b/9458307a.d
Project Info: Livingston Railyard
Sample Info: 140101-1365

Lab No.: 94-58307
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

94-2

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.65**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.40	94	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	9.80	98	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 09:30
Date Received: 28-NOV-94
Analysis Date: 05-DEC-1994 17:15
File: /chem/IONTRAP2.i/vc120594.b/9458308a.d
Project Info: Livingston Railyard
Sample Info: 140101-1366

Lab No.: 94-58308
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

EQUIP BLANK

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	9.70	97	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 08:45
Date Received: 28-NOV-94
Analysis Date: 09-DEC-1994 00:44
File: /chem/IONTRAP2.i/vc120894.b/9458307b.d
Project Info: Livingston Railyard
Sample Info: 140101-1365

Lab No.: 94-58307 Duplicate
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER

94-2

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.36J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.70	87	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.7	107	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 09:30
Date Received: 28-NOV-94
Analysis Date: 05-DEC-1994 17:15
File: /chem/IONTRAP2.i/vcl20594.b/9458308a.d
Project Info: Livingston Railyard
Sample Info: 140101-1366

Lab No.: 94-58308
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

EQUIP BLANK

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	9.70	97	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

ENERGY LABORATORIES

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Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 09:30
Date Received: 28-NOV-94
Analysis Date: 05-DEC-1994 18:06
File: /chem/IONTRAP2.i/vc120594.b/9458309a.d
Project Info: Livingston Railyard
Sample Info: 140101-1367

Lab No.: 94-58309
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

94-1

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**1.8**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	10.5	105	80--120
p-Bromofluorobenzene	10.0	9.50	95	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

ENERGY LABORATORIES

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Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 10:35
Date Received: 28-NOV-94
Analysis Date: 05-DEC-1994 19:43
File: /chem/IONTRAP2.i/vc120594.b/9458310a.d
Project Info: Livingston Railyard
Sample Info: 140101-1368

Lab No.: 94-58310
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

L-87-8

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.2**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**8.4**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**4.6**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	9.40	94	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 11:10
Date Received: 28-NOV-94
Analysis Date: 05-DEC-1994 20:30
File: /chem/IONTRAP2.i/vc120594.b/9458311a.d
Project Info: Livingston Railyard
Sample Info: 140101-1369

Lab No.: 94-58311
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

L-87-2

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**56**	**D**
1,2-Dichlorobenzene	**95-50-1**	**2.3**	
1,4-Dichlorobenzene	**106-46-7**	**3.1**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	**75-35-4**	**<0.50**	**0.22J**
cis-1,2-Dichloroethene	**156-59-2**	**138**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**3.0**	
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.66**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**8.3**	
Vinyl Chloride	**75-01-4**	**51**	**D**
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	**95-49-8**	**61**	**D**
1,3-Dichlorobenzene	**541-73-1**	**<0.50**	**0.43J**
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.80	88	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	9.00	90	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 20 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 11:10
Date Received: 28-NOV-94
Analysis Date: 07-DEC-1994 15:07
File: /chem/5971A.i/val20794.b/07dec0901009.d
Project Info: Livingston Railyard
Sample Info: 140101-1370

Lab No.: 94-58312
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER

L-87-2
Duplicate

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**58**	**D**
1,2-Dichlorobenzene	**95-50-1**	**3.0**	
1,4-Dichlorobenzene	**106-46-7**	**3.7**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	**75-35-4**	**<0.50**	**0.16J**
cis-1,2-Dichloroethene	**156-59-2**	**130**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**2.7**	
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.78**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**8.1**	
Vinyl chloride	**75-01-4**	**53**	**D**
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	**95-49-8**	**73**	**D**
1,3-Dichlorobenzene	**541-73-1**	**0.67**	
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.67	97	80--120
Toluene d8	10.0	9.88	99	80--120
p-Bromofluorobenzene	10.0	9.65	97	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 10-times dilution.

REPORT COMMENTS: None

Analyst: CHL Reviewing Supervisor:

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Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 11:40
Date Received: 28-NOV-94
Analysis Date: 07-DEC-1994 09:45
File: /chem/5971A.i/va120794.b/07dec0101001.d
Project Info: Livingston Railyard
Sample Info: 140101-1371

Lab No.: 94-58313
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER

92-3

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.68**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.06	81	80--120
Toluene d8	10.0	9.74	97	80--120
p-Bromofluorobenzene	10.0	10.7	107	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: CHH

Reviewing Supervisor:

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Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 12:10
Date Received: 28-NOV-94
Analysis Date: 07-DEC-1994 13:46
File: /chem/5971A.i/va120794.b/07dec0701007.d
Project Info: Livingston Railyard
Sample Info: 140101-1372

Lab No.: 94-58314
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER

L-88-10

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**10**	
1,2-Dichlorobenzene	**95-50-1**	**0.91**	
1,4-Dichlorobenzene	**106-46-7**	**1.3**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**52**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**0.73**	
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**44**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**12**	
Vinyl chloride	**75-01-4**	**1.0**	
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	**95-49-8**	**3.7**	
1,3-Dichlorobenzene	**541-73-1**	**<0.50**	**0.39J**
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.8	108	80--120
Toluene d8	10.0	9.75	98	80--120
p-Bromofluorobenzene	10.0	9.29	93	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.
D= Value derived from a 10-times dilution.

REPORT COMMENTS: None

Analyst: CHK Reviewing Supervisor:

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Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 12:45
Date Received: 28-NOV-94
Analysis Date: 07-DEC-1994 10:25
File: /chem/5971A.i/va120794.b/07dec0201002.d
Project Info: Livingston Railyard
Sample Info: 140101-1373

Lab No.: 94-58315
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

EQUIP BLANK

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.17	82	80--120
Toluene d8	10.0	9.72	97	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Lab No.: 94-58316
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER

Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 13:00
Date Received: 28-NOV-94
Analysis Date: 07-DEC-1994 13:09
File: /chem/5971A.i/va120794.b/07dec0601006.d
Project Info: Livingston Railyard
Sample Info: 140101-1374

92-i

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<1.0	U
Chlorobenzene	108-90-7	<1.0	U
1,2-Dichlorobenzene	95-50-1	<1.0	U
1,4-Dichlorobenzene	106-46-7	<1.0	U
1,2-Dichloroethane	107-06-2	<1.0	U
1,1-Dichloroethene	75-35-4	<1.0	U
cis-1,2-Dichloroethene	156-59-2	<1.0	U
trans-1,2-Dichloroethene	156-60-5	<1.0	U
1,2-Dichloropropane	78-87-5	<1.0	U
Methylene chloride	75-09-2	<1.0	U
Tetrachloroethene	**127-18-4**	**69**	**D**
1,1,1-Trichloroethane	71-55-6	<1.0	U
1,1,2-Trichloroethane	79-00-5	<1.0	U
Trichloroethene	79-01-6	<1.0	U
Vinyl chloride	75-01-4	<1.0	U
2-Chloroethylvinyl ether	110-75-8	<1.0	U
Bromodichloromethane	75-27-4	<1.0	U
Bromoform	75-25-2	<1.0	U
Chlorodibromomethane	124-48-1	<1.0	U
Chloroform	67-66-3	<1.0	U
Bromomethane	74-83-9	<1.0	U
Chloroethane	75-00-3	<1.0	U
Chloromethane	74-87-3	<1.0	U
2-Chlorotoluene	95-49-8	<1.0	U
1,3-Dichlorobenzene	541-73-1	<1.0	U
Dichlorodifluoromethane	75-71-8	<1.0	U
1,1-Dichloroethane	75-34-3	<1.0	U
cis-1,3-Dichloropropene	10061-01-5	<1.0	U
trans-1,3-Dichloropropene	10061-02-6	<1.0	U
Fluorotrichloromethane	75-69-4	<1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	<1.0	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	20.0	18.1	90	80--120
Toluene d8	20.0	19.3	97	80--120
p-Bromofluorobenzene	20.0	20.0	100	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10-times dilution.

REPORT COMMENTS:
Practical quantitation limit reflects a 2-times dilution. The sample was analyzed twice with no dilution. However, the results were not reportable. There was insufficient sample for further analyses with no dilution.

Analyst: ____________ Reviewing Supervisor: ____________

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Client: Envirocon, Inc.
Date Sampled: 23-NOV-94 13:40
Date Received: 28-NOV-94
Analysis Date: 07-DEC-1994 12:29
File: /chem/5971A.i/va120794.b/07dec0501005.d
Project Info: Livingston Railyard
Sample Info: 140101-1375

Lab No.: 94-58317
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

89-3

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**171**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.1**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.31	93	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	9.64	96	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

D= Value derived from a 10-times dilution.

REPORT COMMENTS: None

Analyst: CJH

Reviewing Supervisor:

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Quality Control Sample: Laboratory Reagent Blank 03-DEC-1994 11:30
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc120394.b/blk1203a.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.90	89	80--120
Toluene d8	10.0	10.4	104	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: Reviewing Supervisor:

Quality Control Sample: Laboratory Reagent Blank 03-DEC-94 21:51
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc120394.b/blk1203e.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.10	81	80--120
Toluene d8	10.0	10.6	106	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: Reviewing Supervisor:

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Quality Control Sample: Laboratory Reagent Blank 05-DEC-1994 11:06
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc120594.b/blk1205a.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.10	91	80--120
Toluene d8	10.0	11.0	110	80--120
p-Bromofluorobenzene	10.0	9.90	99	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Quality Control Sample: Laboratory Reagent Blank 05-DEC-94 22:47
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc120594.b/blk1205d.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.50	85	80--120
Toluene d8	10.0	10.4	104	80--120
p-Bromofluorobenzene	10.0	9.60	96	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Quality Control Sample: Laboratory Reagent Blank 07-DEC-1994 07:20
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va120694.b/06dec3401034.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**0.97**	**B**
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

B= Compound was found in the blank but not in the associated samples 94-58313 and 94-58315.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Quality Control Sample: Laboratory Reagent Blank 07-DEC-1994 11:49
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/val20794.b/07dec0401004.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.66	97	80--120
Toluene d8	10.0	9.56	96	80--120
p-Bromofluorobenzene	10.0	9.61	96	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: CHH

Reviewing Supervisor:

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Quality Control Sample: Laboratory Reagent Blank 08-DEC-94 21:46
Report Date: 12/12/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc120894.b/blk1208d.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.70	87	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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EPA METHOD 624 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 03-DEC-94 13:46
Report Date: 12/08/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc120394.b/qcs1203a.d

Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Added	Measured	%Rec	QC Limits
Carbon Tetrachloride	5.00	4.70	94	60--140
Chlorobenzene	5.00	4.90	98	60--140
1,4-Dichlorobenzene	5.00	4.90	98	60--140
1,2-Dichloroethane	5.00	4.60	92	60--140
1,1-Dichloroethene	5.00	5.50	110	60--140
trans-1,2-Dichloroethene	5.00	5.10	102	60--140
1,2-Dichloropropane	5.00	4.60	92	60--140
Ethylbenzene	5.00	5.40	108	60--140
Tetrachloroethene	5.00	4.90	98	60--140
1,1,2-Trichloroethane	5.00	4.50	90	60--140
1,3-Dichlorobenzene	5.00	5.00	100	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.00	90	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.7	107	80--120

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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EPA METHOD 624 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 07-DEC-1994 06:42
Report Date: 12/13/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/val20694.b/06dec3301033.d

Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Added	Measured	%Rec	QC Limits
Carbon tetrachloride	5.00	5.18	104	60--140
Chlorobenzene	5.00	5.39	108	60--140
1,4-Dichlorobenzene	5.00	5.24	105	60--140
1,2-Dichloroethane	5.00	5.14	103	60--140
1,1-Dichloroethene	5.00	5.42	108	60--140
trans-1,2-Dichloroethene	5.00	5.22	104	60--140
1,2-Dichloropropane	5.00	4.93	99	60--140
Ethyl benzene	5.00	5.95	119	60--140
Tetrachloroethene	5.00	5.39	108	60--140
1,1,2-Trichloroethane	5.00	5.24	105	60--140
1,3-Dichlorobenzene	5.00	5.29	106	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.3	103	80--120
Toluene d8	10.0	9.82	98	80--120
p-Bromofluorobenzene	10.0	9.94	99	80--120

REPORT COMMENTS: None

Analyst: CJH Reviewing Supervisor:

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EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 09-DEC-94 00:00
Lab No.: 94-58301
Report Date: 12/12/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc120894.b/9458301s.d

Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	5.00	<0.500	5.20	104	60--140
1,2-Dichlorobenzene	5.00	<0.500	6.00	120	60--140
cis-1,2-Dichloroethene	5.00	<0.500	4.20	84	60--140
trans-1,2-Dichloroethene	5.00	<0.500	4.20	84	60--140
1,2-Dichloropropane	5.00	<0.500	4.80	96	60--140
Tetrachloroethene	5.00	<0.500	5.40	108	60--140

EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 08-DEC-94 22:31
Lab No.: 94-58311
Report Date: 12/12/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc120894.b/9458311s.d
Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	100	56	160	104	60--140
1,2-Dichlorobenzene	100	<10.0	122	122	60--140
cis-1,2-Dichloroethene	100	138	225	87	60--140
trans-1,2-Dichloroethene	100	<10.0	87.4	87	60--140
1,2-Dichloropropane	100	<10.0	101	101	60--140
Tetrachloroethene	100	<10.0	110	110	60--140

Lab Nos. 94-58294-317

Date 11/28/94

Received by Randa Hoelscher

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s) and associated sample custody information on receipt at the laboratory.

Chain-of-custody form completed & signed	Yes	Comments:
Chain-of-custody seal properly placed	Yes	Comments:
Chain-of-custody seal intact	Yes	Comments:
Signature Match, Chain-of-custody vs. Seal	Yes	Comments:
Sample received cold	Yes	Comments:
Samples received within holding time	Yes	Comments:
Samples received in proper containers and properly preserved	No	Comments: Samples 94-58312, 58314, 58316 & 58317 were not acidified and thus were not properly preserved for 624 analysis.
Client notified about sample discrepancies	No	Comments: 1 Vial received broken for 140101-1371

Who: By: Date/Time:

Method of Shipment Greyhound Bus Bill #627203

ENVIROCON, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101

PROJECT NAME LIVINGSTON RAILYARD

SAMPLERS: (Signature) H. Crowell Herrick

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CON-TAINERS	601						REMARKS
	11/22/94	0855			140101-1352	2	A B						
		0930			-1353	2	A B						
		1020			-1354	2	A B						
		1050			-1355	2	A B						
		1135			-1356	2	A B						
		1210			-1357	2	A B						
		1248			-1358	2	A B						
		1248			-1359	2	A B						
		1414			-1360	2	A B						
		1441			-1361	2	A B						
		1512			-1362	2	A B						
		1541			-1363	2	A B						
		1616			-1364	2	A B						

Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
H. Crowell Herrick	11/23/94 1500				
Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Chain of Custody Seal:

Intact? [✓ yes]/no Intact

Lab Personnel (receiving)

Signature: 11/28/94 @ 1050

Remarks

Split Samples:
[] Accepted [] Declined
Signature

ENVIROCON, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101

PROJECT NAME LIVINGSTON RAILYARD

SAMPLERS: (Signature) H. Crowell Merrick III

STAT. NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	601						REMARKS
	11/23/94	0845			140101 -1365	2	A B						
		0930			-1366	2	A B						
		0930			-1367	2	A B						
		1035			-1368	2	A B						
		1110			-1369	2	A B						
		1110			-1370	2	A B						
		1140			-1371	2	A B						Not rec'd Lab
		1210			-1372	2	A B						
		1245			-1373	2	A B						
		1300			-1374	2	A B						
		1340			-1375	2	A B						

Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
H. Crowell Merrick, III	11/23/94 1500				
Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Chain of Custody Seal:

Intact? ([✓ yes]/no) Intact

Lab Personnel (receiving)

Signature: 11/28/94 @ 1030

Remarks

Split Samples:
[] Accepted [] Declined ______ Signature

Lab No(s) [illegible]

Date [illegible]

Received by [illegible]

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s) and associated sample custody information on receipt at the laboratory.

Chain of Custody Form Completed & Signed [✓ Y] N N/A Comments:

Chain of Custody Seal Properly Placed [✓ Y] N N/A Comments:

Chain of Custody Seal Intact [✓ Y] N N/A Comments:

Signature Match, Chain of Custody vs. Seal [✓ Y] N N/A Comments:

Sample Received Cold [✓ Y] N N/A Comments:

Samples Received Within Holding Time [✓ Y] N N/A Comments:

Samples Received in Proper Containers & Properly Preserved [✓ Y] [✓ N] N/A Comments: Samples 94-58312, 58314, 58316, & 58317 were not acidified and thus were not properly preserved for 624 analysis. CHA

Client Notified About Sample Discrepancies Y [✓ N] N/A Comments: [illegible]

Who: By: Date/Time:

Method of Shipment: Mail

Hand Delivered

Bus: [illegible]

UPS:

Federal Express:

Other:

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

December 29, 1994

H.C. Herrich
Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

On December 15, 1994, this sample, represented by our laboratory number 94-60852, was submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by:____________________________

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
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Client: Envirocon, Inc.
Date Sampled: 14-DEC-94 10:20
Date Received: 15-DEC-94
Analysis Date: 27-DEC-1994 12:17
File: /chem/5971A.i/va122794.b/27dec0701007.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1376

Lab No.: 94-60852
Report Date: 12/28/94
Extraction Method: EPA 5030
Sample Matrix: WATER

89-9

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**0.99**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**80**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.7**	
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.92	89	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	10.1	101	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

D= Value derived from a 10-times dilution.

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor:

EPA METHOD 624 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 27-DEC-1994 10:27
Report Date: 12/28/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va122794.b/27dec0401004.d

Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

	CONCENTRATION UNITS = ug/L (ppb)			
Spike Compound	Added	Measured	%Rec	QC Limits
Carbon tetrachloride	5.00	4.85	97	60--140
Chlorobenzene	5.00	5.42	108	60--140
1,4-Dichlorobenzene	5.00	5.20	104	60--140
1,2-Dichloroethane	5.00	5.12	102	60--140
1,1-Dichloroethene	5.00	4.26	85	60--140
trans-1,2-Dichloroethene	5.00	5.10	102	60--140
1,2-Dichloropropane	5.00	4.98	100	60--140
Ethyl benzene	5.00	6.07	121	60--140
Tetrachloroethene	5.00	5.15	103	60--140
1,1,2-Trichloroethane	5.00	5.02	100	60--140
1,3-Dichlorobenzene	5.00	5.26	105	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.0	110	80--120
Toluene d8	10.0	9.92	99	80--120
p-Bromofluorobenzene	10.0	9.61	96	80--120

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor: WTB

Quality Control Sample: Laboratory Reagent Blank 27-DEC-1994 11:40
Report Date: 12/28/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/5971A.i/va122794.b/27dec0601006.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.2	112	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	9.57	96	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: CHH Reviewing Supervisor: WTY

Lab Nos. 94-60852

Date 12/15/94

Received by Randa Hoelscher

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s) and associated sample custody information on receipt at the laboratory.

Chain-of-custody form completed & signed	Yes	Comments:
Chain-of-custody seal properly placed	Yes	Comments:
Chain-of-custody seal intact	Yes	Comments:
Signature Match, Chain-of-custody vs. Seal	Yes	Comments:
Sample received cold	Yes	Comments:
Samples received within holding time	Yes	Comments:
Samples received in proper containers and properly preserved	Yes	Comments:
Client notified about sample discrepancies		Comments:

Who: By: Date/Time:

Method of Shipment Greyhound bus bill #122 855 147 8

ENVIROCON, INC.

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101	PROJECT NAME Livingston Rail Yard
SAMPLERS: *(Signature)* H. Crowell Herrick III	

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CON-TAINERS	601						REMARKS
	12/14/94	1020			140101 1376	2	A B						

Relinquished *(Signature)* H. C. Herrick III	Date/Time 12/14/94 1200	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Relinquished *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*

Chain of Custody Seal:

Intact? [✓ yes]/no Intact

Lab Personnel (receiving)

Signature: 12/5/94 @

Remarks 0930

Split Samples:
[] Accepted [] Declined ____________
Signature

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RECEIVED
SEP 08 1994
ENVIROCON, Inc.
Livingston, Mt.

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 10:40
Date Received: 22-AUG-94
Analysis Date: 25-AUG-1994 21:31
File: /chem/IONTRAP2.i/vc82594.b/9439774a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1331

Lab No.: 94-39774
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

90-6

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39774
Sample Info: 1331

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: CHH

RECEIVED
SEP 08 1994
ENVIROCON, Inc.
Livingston, Mt.

ENERGY LABORATORIES

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FAX (406) 252-6069 • 1-800-735-4489

RECEIVED
1994
Envirocon, Inc.
[illegible]

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 11:11
Date Received: 22-AUG-94
Analysis Date: 25-AUG-1994 22:12
File: /chem/IONTRAP2.i/vc82594.b/9439775a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1332

Lab No.: 94-39775
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

89-3

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**245**	**D**
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.6**	
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39775
Sample Info: 1332

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.0	110	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicatee compound was analyzed for but nct detected.

D= Value derived from a 20 times dilution.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: CWE

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ENVIROCON, Inc.
Livingston, Mt.

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Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 12:24
Date Received: 22-AUG-94
Analysis Date: 25-AUG-1994 22:53
File: /chem/IONTRAP2.i/vc82594.b/9439776a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1333

Lab No.: 94-39776
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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Envirocon, Inc.

L-87-3

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**8.3**	
trans-1,2-Dichloroethene	**156-60-5**	**0.52**	
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**74**	**D**
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**6.5**	
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39776
Sample Info: 1333

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.80	98	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

D: Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

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ENVIROCON, Inc.
Livingston, Mt.

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 12:55
Date Received: 22-AUG-94
Analysis Date: 26-AUG-1994 00:15
File: /chem/IONTRAP2.i/vc82594.b/9439777a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1334

Lab No.: 94-39777
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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ENVIROCON, Inc.
Livingston, MT

89-2

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.3	103	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 13:53
Date Received: 22-AUG-94
Analysis Date: 26-AUG-1994 00:57
File: /chem/IONTRAP2.i/vc82594.b/9439778a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1335

Lab No.: 94-39778
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

L-87-8

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.6**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**12**	
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**5.6**	
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39778
Sample Info: 1335

EPA METHOD 624

VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.1	111	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: CHA

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[illegible], Inc.
Livingston, [illegible]

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ENVIROCON, Inc.
Livingston, MT

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 15:00
Date Received: 22-AUG-94
Analysis Date: 26-AUG-1994 01:39
File: /chem/IONTRAP2.i/vc82594.b/9439779a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1336

Lab No.: 94-39779
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

L-87-2

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**54**	**D**
1,2-Dichlorobenzene	**95-50-1**	**3.4**	
1,4-Dichlorobenzene	**106-46-7**	**4.3**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**96**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**2.7**	
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	**100-41-4**	**1.1**	
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**1.8**	
Toluene	**108-88-3**	**0.71**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**8.6**	
Vinyl Chloride	**75-01-4**	**58**	**D**
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	**95-47-6**	**3.1**	
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	**95-49-8**	**48**	**D**
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	**541-73-1**	**0.80**	
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39779
Sample Info: 1336

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.4	104	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	9.90	99	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 20 times dilution.

REPORT COMMENTS: None

Analyst: HGc Reviewing Supervisor: CHH

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ENVIROCON, Inc.
Livingston, Mt.

ENERGY LABORATORIES

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 15:50
Date Received: 22-AUG-94
Analysis Date: 26-AUG-1994 22:01
File: /chem/IONTRAP2.i/vc82694.b/9439780a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1337

Lab No.: 94-39780
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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Envirocon, Inc.
Livingston, Mt.

89-9

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.1**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**87**	**D**
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**4.1**	
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39780
Sample Info: 1337

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.5	105	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

D= Value derived from a 20 times dilution.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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ENVIROCON, Inc.
Livingston, Mt.

ENERGY LABORATORIES

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FAX (406) 252-6069 • 1-800-735-4489

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Livingston, Mt.

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 16:30
Date Received: 22-AUG-94
Analysis Date: 26-AUG-94 22:42
File: /chem/IONTRAP2.i/vc82694.b/9439781a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1338

Lab No.: 94-39781
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

92-4

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	1.8	
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.4	104	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HGC Reviewing Supervisor: ____

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Livingston, Mt.

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FAX (406) 252-6069 • 1-800-735-4489

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ENVIROCON, Inc.
Livingston, MT

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 16:30
Date Received: 22-AUG-94
Analysis Date: 30-AUG-94 12:05
File: /chem/IONTRAP2.i/vc83094.b/9439781b.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1338

Lab No.: 94-39781 Duplicate
Report Date: 08/31/94
Extraction Method: EPA 5030
Sample Matrix: WATER

92-4
Lab Dup

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**1.7**	
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.5	105	80--120
Toluene d8	10.0	10.3	103	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

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REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Lab No.: 94-39782
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 16:40
Date Received: 22-AUG-94
Analysis Date: 26-AUG-1994 03:03
File: /chem/IONTRAP2.i/vc82594.b/9439782a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1339

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Livingston, MT

89-4

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**0.73**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**42**	**D**
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.6**	
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39782
Sample Info: 1339

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.6	106	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 16:45
Date Received: 22-AUG-94
Analysis Date: 26-AUG-94 23:24
File: /chem/IONTRAP2.i/vc82694.b/9439783a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1340

Lab No.: 94-39783
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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ENVIROCON, Inc.
Livingston, Mt

~~1387-5~~
89-4 Dup.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**93**	**D**
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.1**	
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39783
Sample Info: 1340

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.7	107	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 20 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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ENVIROCON, Inc.
Livingston, Mt.

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 19-AUG-94 09:30
Date Received: 22-AUG-94
Analysis Date: 27-AUG-94 00:46
File: /chem/IONTRAP2.i/vc82694.b/9439784a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1341

Lab No.: 94-39784
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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Livingston, Mt.

L-87-5

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.2**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**92**	**D**
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**4.9**	
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39784
Sample Info: 1341

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	11.1	111	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 20 times dilution.

REPORT COMMENTS: None

Analyst: HJc Reviewing Supervisor: CHH

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Livingston, MT

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 10:13
Date Received: 22-AUG-94
Analysis Date: 27-AUG-94 01:26
File: /chem/IONTRAP2.i/vc82694.b/9439785a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1342
#5

Lab No.: 94-39785
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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ENVIROCON, Inc.
Livingston, Mt.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**0.80**	
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 18-AUG-94 10:13
Date Received: 22-AUG-94
Analysis Date: 30-AUG-94 12:46
File: /chem/IONTRAP2.i/vc83094.b/9439785b.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1342

Lab No.: 94-39785 Duplicate
Report Date: 08/31/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**0.60**	
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: 7/g Reviewing Supervisor: CLH

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Client: Envirocon, Inc.
Date Sampled: 19-AUG-94 11:00
Date Received: 22-AUG-94
Analysis Date: 27-AUG-94 02:06
File: /chem/IONTRAP2.i/vc82694.b/9439786a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1343

Lab No.: 94-39786
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

LS-11

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**85**	**D**
1,2-Dichlorobenzene	**95-50-1**	**0.68**	
1,4-Dichlorobenzene	**106-46-7**	**21**	**D**
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**22**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**3.0**	
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**16**	
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**11**	
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	**541-73-1**	**2.1**	
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.30	93	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 19-AUG-94 11:00
Date Received: 22-AUG-94
Analysis Date: 27-AUG-94 03:30
File: /chem/IONTRAP2.i/vc82694.b/9439787a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1344

Lab No.: 94-39787
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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Livingston, Mt.

LS-11
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EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**87**	**D**
1,2-Dichlorobenzene	**95-50-1**	**0.69**	
1,4-Dichlorobenzene	**106-46-7**	**21**	**D**
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**21**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**3.0**	
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**17**	
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**12**	
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	**541-73-1**	**2.3**	
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.60	96	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.7	107	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

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ENVIROCON, Inc.
Livingston, Mt.

ENERGY LABORATORIES

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 19-AUG-94 12:00
Date Received: 22-AUG-94
Analysis Date: 27-AUG-94 04:12
File: /chem/IONTRAP2.i/vc82694.b/9439788a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1345

92-2

Lab No.: 94-39788
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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ENVIROCON, Inc.
Livingston, Mt.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**6.4**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**33**	**D**
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.8**	
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.90	99	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	11.0	110	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 19-AUG-94 14:30
Date Received: 22-AUG-94
Analysis Date: 27-AUG-94 04:55
File: /chem/IONTRAP2.i/vc82694.b/9439789a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1346

Lab No.: 94-39789
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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92-3

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**0.82**	
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	9.50	95	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 19-AUG-94 14:30
Date Received: 22-AUG-94
Analysis Date: 30-AUG-94 13:25
File: /chem/IONTRAP2.i/vc83094.b/9439789b.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1346

Lab No.: 94-39789 Duplicate
Report Date: 08/31/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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92-3
Lab Dup.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**0.68**	
Toluene	108-88-3	<0.50	U
1,2,4-Trichlorobenzene	120-82-1	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
Total Xylenes		<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
n-Butylbenzene	104-51-8	<0.50	U
sec-Butylbenzene	135-98-8	<0.50	U
tert-Butylbenzene	98-06-6	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromo-3-chloropropane	96-12-8	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U

(report continued on page 2)

Lab No.: 94-39789
Sample Info: 1346

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
Hexachlorobutadiene	87-68-3	<0.50	U
Isopropylbenzene	98-82-8	<0.50	U
p-Isopropyltoluene	99-87-6	<0.50	U
Naphthalene	91-20-3	<0.50	U
n-Propylbenzene	103-65-1	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichlorobenzene	87-61-6	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U
1,2,4-Trimethylbenzene	95-63-6	<0.50	U
1,3,5-Trimethylbenzene	108-67-8	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 19-AUG-94 14:45
Date Received: 22-AUG-94
Analysis Date: 27-AUG-94 06:18
File: /chem/IONTRAP2.i/vc82694.b/9439790a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1347

Lab No.: 94-39790
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	2.4	
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	11.3	113	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: CJH

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Client: Envirocon, Inc.
Date Sampled: 19-AUG-94 15:00
Date Received: 22-AUG-94
Analysis Date: 27-AUG-1994 07:01
File: /chem/IONTRAP2.i/vc82694.b/9439791a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: 1348

Lab No.: 94-39791
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER

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Livingston, Mt.

94-2

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39791
Sample Info: 1348

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	10.3	103	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Livingston, Mt.

Client: Envirocon, Inc.
Date Sampled:
Date Received: 22-AUG-94
Analysis Date: 30-AUG-94 01:24
File: /chem/IONTRAP2.i/vc82994.b/9439792a.d
Project Info: Proj. No. 140101, BN-Livingston
Sample Info: Trip Blank

Lab No.: 94-39792
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-39792
Sample Info: Trip Blank

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.4	114	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	9.60	96	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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SEP 08 1994
ENVIROCON, Inc.
Livingston, Mt.

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ENVIROCON, Inc.
Livingston, Mt.

Quality Control Sample: Laboratory Reagent Blank 25-AUG-94 20:08
Report Date: 09/06/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc82594.b/blk0825b.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

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ENVIROCON, Inc.
Livingston, Mt.

September 12, 1994

Envirocon, Inc.
P.O. Box 1154
Livingston, MT 59047

On August 24, 1994, these samples, represented by our laboratory numbers 94-40009-18, were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by:

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
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RECEIVED
SEP 19 1994
ENVIROCON, Inc.
Livingston, Mt.

Client: Envirocon, Inc.
Date Sampled: 22-AUG-94 09:30
Date Received: 24-AUG-94
Analysis Date: 29-AUG-94 22:09
File: /chem/IONTRAP2.i/vc82994.b/9440009a.d
Project Info: BN-Livingston
Sample Info: 140101-1349

Lab No.: 94-40009
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

L-88-10

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**7.2**	
1,2-Dichlorobenzene	**95-50-1**	**0.72**	
1,4-Dichlorobenzene	**106-46-7**	**0.90**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**43**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**0.60**	
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**47**	**D**
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**13**	
Vinyl Chloride	**75-01-4**	**0.86**	
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	**95-49-8**	**0.90**	
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

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ENVIROCON, Inc.
Livingston, Mt.

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.4	114	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	9.30	93	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

ENERGY LABORATORIES

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ENVIROCON, Inc.
Livingston, Mt.

Client: Envirocon, Inc.
Date Sampled: 22-AUG-94 10:30
Date Received: 24-AUG-94
Analysis Date: 29-AUG-94 22:58
File: /chem/IONTRAP2.i/vc82994.b/9440010a.d
Project Info: BN-Livingston
Sample Info: 140101-1350

Lab No.: 94-40010
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

92-1

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**115**	**D**
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Lab No.: 94-40010
Sample Info: 140101-1350

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	12.0	120	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 20 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Livingston, Mt.

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ENVIROCON, Inc.
Livingston, Mt.

Client: Envirocon, Inc.
Date Sampled: 22-AUG-94 10:30
Date Received: 24-AUG-94
Analysis Date: 01-SEP-94 16:54
File: /chem/IONTRAP2.i/vc90194.b/9440010b.d
Project Info: BN-Livingston
Sample Info: 140101-1350 [redacted]

Lab No.: 94-40010 Duplicate
Report Date: 09/02/94
Extraction Method: EPA 5030
Sample Matrix: WATER

92-1 Lab Dup

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**107**	**D**
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 20 times dilution.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: CLA

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SEP 19 1994
ENVIROCON, Inc.
Livingston, Mt.

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RECEIVED
SEP 19 1994
ENVIROCON, Inc.
Livingston, Mt.

Client: Envirocon, Inc.
Date Sampled: 23-AUG-94 14:00
Date Received: 24-AUG-94
Analysis Date: 29-AUG-94 21:20
File: /chem/IONTRAP2.i/vc82994.b/9440011a.d
Project Info: BN-Livingston
Sample Info: 140101-1351

Lab No.: 94-40011
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER

94-1

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	**127-18-4**	**2.2**	
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.3	113	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	9.60	96	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: CHH

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EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 30-AUG-94 22:32
Lab No.: 94-40011
Report Date: 08/31/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc83094.b/9440011s.d
Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	5.00	<0.500	5.30	106	60--140
1,2-Dichlorobenzene	5.00	<0.500	5.50	110	60--140
cis-1,2-Dichloroethene	5.00	<0.500	4.10	82	60--140
trans-1,2-Dichloroethene	5.00	<0.500	4.30	86	60--140
1,2-Dichloropropane	5.00	<0.500	5.00	100	60--140
Ethylbenzene	5.00	<0.500	4.60	92	60--140
Styrene	5.00	<0.500	5.00	100	60--140
Tetrachloroethene	5.00	2.20	6.80	92	60--140
Toluene	5.00	<0.500	5.30	106	60--140
m+p-Xylenes	5.00	<0.500	4.40	88	60--140
o-Xylene	5.00	<0.500	4.90	98	60--140

REPORT COMMENTS: None

Analyst:________ Reviewing Supervisor:________

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Quality Control Sample: Laboratory Reagent Blank 29-AUG-1994 14:07
Report Date: 09/06/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc82994.b/blk0829aa.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Quality Control Sample: Laboratory Reagent Blank 29-AUG-1994 14:07
Report Date: 09/06/94

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.3	103	80--120
Toluene d8	10.0	9.40	94	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: Reviewing Supervisor: CHW

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EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.0	110	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.1	101	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst:________ Reviewing Supervisor:________

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Quality Control Sample: Laboratory Reagent Blank 26-AUG-94 21:19
Report Date: 09/06/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc82694.b/blk0826e.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.5	105	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: HJC Reviewing Supervisor: CHA

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Quality Control Sample: Laboratory Reagent Blank 27-AUG-94 05:37
Report Date: 09/06/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc82694.b/blk0827a.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Quality Control Sample: Laboratory Reagent Blank 27-AUG-94 05:37 Page 2
Report Date: 09/06/94

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Quality Control Sample: Laboratory Reagent Blank 30-AUG-1994 09:19
Report Date: 09/06/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc83094.b/blk0830a.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.2	112	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	9.80	98	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ____ Reviewing Supervisor: ____

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Quality Control Sample: Laboratory Reagent Blank 30-AUG-1994 18:30
Report Date: 09/06/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc83094.b/blk0830b.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

Quality Control Sample: Laboratory Reagent Blank 30-AUG-1994 18:30
Report Date: 09/06/94

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.5	105	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	9.80	98	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: CHH

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Quality Control Sample: Laboratory Reagent Blank 01-SEP-94 16:13
Report Date: 09/06/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc90194.b/blk0901a.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Benzene	71-43-2	<0.50	U
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Ethylbenzene	100-41-4	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Styrene	100-42-5	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
Toluene	108-88-3	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
m+p-Xylenes	108383/106423	<0.50	U
o-Xylene	95-47-6	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromobenzene	108-86-1	<0.50	U
Bromochloromethane	74-97-5	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
4-Chlorotoluene	106-43-4	<0.50	U
1,2-Dibromoethane	106-93-4	<0.50	U
Dibromomethane	74-95-3	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
1,1-Dichloropropene	563-58-6	<0.50	U
1,3-Dichloropropane	142-28-9	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U

(report continued on page 2)

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT (continued)

CONCENTRATION UNITS = ug/L

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
2,2-Dichloropropane	594-20-7	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,1,2-Tetrachloroethane	630-20-6	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U
1,2,3-Trichloropropane	96-18-4	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.6	106	80--120
Toluene d8	10.0	9.90	99	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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EPA METHOD 624 MATRIX SPIKE REPORT

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Quality Control Sample: Matrix Spike Analysis 30-AUG-94 11:23
Lab No.: 94-39777
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc83094.b/9439777s.d

Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	5.00	<0.500	5.70	114	60--140
1,2-Dichlorobenzene	5.00	<0.500	5.70	114	60--140
cis-1,2-Dichloroethene	5.00	<0.500	4.40	88	60--140
trans-1,2-Dichloroethene	5.00	<0.500	4.20	84	60--140
1,2-Dichloropropane	5.00	<0.500	5.20	104	60--140
Ethylbenzene	5.00	<0.500	4.60	92	60--140
Styrene	5.00	<0.500	5.40	108	60--140
Tetrachloroethene	5.00	<0.500	5.20	104	60--140
Toluene	5.00	<0.500	5.20	104	60--140
m+p-Xylenes	5.00	<0.500	3.60	72	60--140
o-Xylene	5.00	<0.500	5.00	100	60--140

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EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 30-AUG-94 14:06
Lab No.: 94-39791
Report Date: 08/30/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc83094.b/9439791s.d

Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodolgy.

CONCENTRATION UNITS = ug/L

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	5.00	<0.500	5.10	102	60--140
1,2-Dichlorobenzene	5.00	<0.500	6.30	126	60--140
cis-1,2-Dichloroethene	5.00	<0.500	3.90	78	60--140
trans-1,2-Dichloroethene	5.00	<0.500	4.60	92	60--140
1,2-Dichloropropane	5.00	<0.500	4.60	92	60--140
Ethylbenzene	5.00	<0.500	5.60	112	60--140
Styrene	5.00	<0.500	5.70	114	60--140
Tetrachloroethene	5.00	<0.500	5.50	110	60--140
Toluene	5.00	<0.500	5.40	108	60--140
m+p-Xylenes	5.00	<0.500	5.50	110	60--140
o-Xylene	5.00	<0.500	5.80	116	60--140

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EPA METHOD 624 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 26-AUG-94 18:24
Report Date: 08/29/94
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc82694.b/qcs0826a.d
Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

CONCENTRATION UNITS = ug/L

Spike Compound	Added	Measured	%Rec	QC Limits
Carbon Tetrachloride	5.00	4.90	98	60--140
Chlorobenzene	5.00	5.00	100	60--140
1,4-Dichlorobenzene	5.00	5.00	100	60--140
1,2-Dichloroethane	5.00	5.10	102	60--140
1,1-Dichloroethene	5.00	4.70	94	60--140
trans-1,2-Dichloroethene	5.00	4.90	98	60--140
1,2-Dichloropropane	5.00	4.70	94	60--140
Ethylbenzene	5.00	4.60	92	60--140
Tetrachloroethene	5.00	5.00	100	60--140
1,1,2-Trichloroethane	5.00	5.50	110	60--140
1,3-Dichlorobenzene	5.00	5.00	100	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	11.2	112	80--120
Toluene d8	10.0	9.20	92	80--120
p-Bromofluorobenzene	10.0	9.70	97	80--120

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Table 1: Tetrachloroethene Analytical Results for Ground-Water Samples Collected During Quarterly Sampling Rounds, Livingston Rail Yard, Livingston, Montana.

Chemical Parameter: *Tetrachloroethene* Units: *ug/L*

Monitoring Well	1993 August Quarterly	1993 November Quarterly	1994 February Quarterly	1994 May Annual
1	-	1.4 B	-	0.68 B
2	-	0.81 B	-	20.0 B
3	-	-	-	0.68 B
4	-	-	-	0.68 B
5	1.1 A	< 0.5 B	0.63 B	0.64 B
6	-	1.8 B	-	1.1 B
7	-	-	-	13.0 B
8	-	-	-	50.0 B
89-1	-	-	-	6.9 B
89-10	-	-	-	69.0 B
89-2	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
89-3	300.0 A	180.0 B	210.0 B	119.0 B
89-4	120.0 B	140.0 B	150.0 B	138.0 B
89-6	-	-	-	1.0 B
89-7	-	-	-	10.0 B
89-9	-	90.0 B	96.0 B	80.0 B
90-2B	-	-	-	62.0 B
90-3	-	-	-	33.0 B
90-6	< 0.5 B	1.1 B	1.1 B	< 0.5 B
92-1	210.0 B	200.0 B	86.0 B	87.0 B
92-2	7.5 B	29.0 B	32.0 B	15.0 B
92-3	1.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-4	2.0 B	2.5 B	38.0 B	35.0 B
94-1	-	-	-	2.4 B
94-2	-	-	-	0.5 B
B-STREET	-	-	-	-
HRO-17	-	-	-	-
L-87-2	< 0.5 A	-	< 0.5 B	< 0.5 B
L-87-3	81.0 B	86.0 B	100.0 B	96.0 B
L-87-4	-	-	-	< 0.5 B
L-87-5	93.0 B	80.0 B	75.0 B	58.0 B
L-87-7	-	-	-	< 0.5 B
L-87-8	3.4 B	5.0 B	5.2 B	14.0 B
L-88-10	39.0 B	47.0 B	73.0 B	45.0 B
L-88-13	-	-	-	16.0 B
L-88-9	-	-	-	-
LS-11	28.0 B	4.4 B	41.0 B	39.0 B
LS-6	-	-	-	< 0.5 B
LS-8	-	-	-	-
RAINBOW	-	-	-	10.0 B

Note: Analyte concentrations are listed with assigned data usability validation codes.
Validation Code Definition: B - Quantitative Quality, A - Qualitative Quality, U - Unusable

Table 2: Trichloroethene Analytical Results for Ground-Water Samples Collected During Quarterly Sampling Rounds, Livingston Rail Yard, Livingston, Montana.

Chemical Parameter: ***Trichloroethene*** Units: *ug/L*

Monitoring Well	1993 August Quarterly	1993 November Quarterly	1994 February Quarterly	1994 May Annual
1	-	< 0.5 B	-	< 0.5 B
2	-	< 0.5 B	-	0.73 B
3	-	-	-	< 0.5 B
4	-	-	-	< 0.5 B
5	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
6	-	< 0.5 B	-	< 0.5 B
7	-	-	-	0.5 B
8	-	-	-	2.8 B
89-1	-	-	-	< 0.5 B
89-10	-	-	-	5.7 B
89-2	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
89-3	1.3 B	0.83 B	0.63 B	0.91 B
89-4	2.5 B	1.8 B	2.0 B	1.6 B
89-6	-	-	-	< 0.5 B
89-7	-	-	-	1.4 B
89-9	-	4.1 B	3.5 B	2.5 B
90-2B	-	-	-	9.0 B
90-3	-	-	-	3.0 B
90-6	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-1	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-2	< 5.0 B	2.5 B	3.3 B	2.0 B
92-3	< 0.5 B	< 0.5 B	< 0.5 B	< 0.5 B
92-4	< 0.5 B	0.5 B	2.0 B	1.8 B
94-1	-	-	-	< 0.5 B
94-2	-	-	-	< 0.5 B
B-STREET	-	-	-	-
HRO-17	-	-	-	-
L-87-2	6.2 A	-	13.0 B	16.0 B
L-87-3	9.8 B	10.0 B	11.0 B	8.7 B
L-87-4	-	-	-	< 0.5 B
L-87-5	6.1 B	4.8 B	3.4 B	2.5 B
L-87-7	-	-	-	< 0.5 B
L-87-8	1.0 B	1.9 B	7.7 B	5.5 B
L-88-10	14.0 B	15.0 B	12.0 B	11.0 B
L-88-13	-	-	-	2.9 B
L-88-9	-	-	-	-
LS-11	8.5 B	8.8 B	9.4 B	7.0 B
LS-6	-	-	-	< 0.5 B
LS-8	-	-	-	-
RAINBOW	-	-	-	1.8 B

Note: Analyte concentrations are listed with assigned data usability validation codes.
Validation Code Definition: B - Quantitative Quality, A - Qualitative Quality, U - Unusable

Table 3: cis-1,2-Dichloroethene Analytical Results for Ground-Water Samples Collected During Quarterly Sampling Rounds, Livingston Rail Yard, Livingston, Montana.

Chemical Parameter: *cis-1,2-Dichloroethene* Units: *ug/L*

Monitoring Well	1993 August Quarterly	1993 November Quarterly	1994 February Quarterly	1994 May Annual
1	-	< 1.0 B	-	< 0.5 B
2	-	< 1.0 B	-	< 0.5 B
3	-	-	-	< 0.5 B
4	-	-	-	< 0.5 B
5	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
6	-	< 1.0 B	-	< 0.5 B
7	-	-	-	0.53 B
8	-	-	-	3.3 B
89-1	-	-	-	< 0.5 B
89-10	-	-	-	14.0 B
89-2	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
89-3	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
89-4	1.2 B	< 1.0 B	< 1.0 B	0.72 B
89-6	-	-	-	< 0.5 B
89-7	-	-	-	< 0.5 B
89-9	-	2.4 B	1.0 B	0.82 B
90-2B	-	-	-	43.0 B
90-3	-	-	-	5.6 B
90-6	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
92-1	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
92-2	< 10.0 B	4.2 B	3.6 B	4.2 B
92-3	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
92-4	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
94-1	-	-	-	< 0.5 B
94-2	-	-	-	< 0.5 B
B-STREET	-	-	-	-
HRO-17	-	-	-	-
L-87-2	270.0 B	-	140.0 B	46.0 B
L-87-3	18.0 B	14.0 B	21.0 B	24.0 B
L-87-4	-	-	-	< 0.5 B
L-87-5	3.7 B	3.1 B	1.4 B	0.78 B
L-87-7	-	-	-	< 0.5 B
L-87-8	< 1.0 B	2.0 B	4.0 B	1.5 B
L-88-10	64.0 B	95.0 B	70.0 B	44.0 B
L-88-13	-	-	-	1.6 B
L-88-9	-	-	-	-
LS-11	16.0 B	13.0 B	30.0 B	18.0 B
LS-6	-	-	-	< 0.5 B
LS-8	-	-	-	-
RAINBOW	-	-	-	2.2 B

Note: Analyte concentrations are listed with assigned data usability validation codes.
Validation Code Definition: B - Quantitative Quality, A - Qualitative Quality, U - Unusable

Table 4: Chlorobenzene Analytical Results for Ground-Water Samples Collected During Quarterly Sampling Rounds, Livingston Rail Yard, Livingston, Montana.

Chemical Parameter: *Chlorobenzene* Units: *ug/L*

Monitoring Well	1993 August Quarterly	1993 November Quarterly	1994 February Quarterly	1994 May Annual
1	-	< 1.0 B	-	< 0.5 B
2	-	< 1.0 B	-	< 0.5 B
3	-	-	-	< 0.5 B
4	-	-	-	< 0.5 B
5	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
6	-	< 1.0 B	-	< 0.5 B
7	-	-	-	< 0.5 B
8	-	-	-	< 0.5 B
89-1	-	-	-	< 0.5 B
89-10	-	-	-	< 0.5 B
89-2	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
89-3	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
89-4	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
89-6	-	-	-	< 0.5 B
89-7	-	-	-	< 0.5 B
89-9	-	< 1.0 B	< 1.0 B	< 0.5 B
90-2B	-	-	-	< 0.5 B
90-3	-	-	-	< 0.5 B
90-6	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
92-1	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
92-2	< 10.0 B	< 1.0 B	< 1.0 B	< 0.5 B
92-3	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
92-4	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
94-1	-	-	-	< 0.5 B
94-2	-	-	-	< 0.5 B
B-STREET	-	-	-	-
HRO-17	-	-	-	-
L-87-2	58.0 B	-	44.0 B	32.0 B
L-87-3	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
L-87-4	-	-	-	< 0.5 B
L-87-5	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
L-87-7	-	-	-	< 0.5 B
L-87-8	< 1.0 B	< 1.0 B	< 1.0 B	< 0.5 B
L-88-10	3.5 B	7.0 B	4.5 B	< 0.5 B
L-88-13	-	-	-	< 0.5 B
L-88-9	-	-	-	-
LS-11	150.0 B	84.0 B	60.0 B	1.1 B
LS-6	-	-	-	< 0.5 B
LS-8	-	-	-	-
RAINBOW	-	-	-	< 0.5 B

Note: Analyte concentrations are listed with assigned data usability validation codes.
Validation Code Definition: B - Quantitative Quality, A - Qualitative Quality, U - Unusable

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Client: Envirocon, Inc.
Date Sampled: 23-AUG-95 09:26
Date Received: 26-AUG-95
Analysis Date: 06-SEP-1995 05:19
File: /IONTRAP2.i/vc090695.b/9553349a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1459 A,B

Lab No.: 95-53349
Report Date: 09/11/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**7.8**	
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	**106-46-7**	**1.0**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**22**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	**0.39J**
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**29**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**12**	
Vinyl Chloride	**75-01-4**	**0.78**	
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	**95-49-8**	**1.7**	
1,3-Dichlorobenzene	**541-73-1**	**<0.50**	**0.20J**
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.3	103	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times diltion.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

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Client: Envirocon, Inc.
Date Sampled: 23-AUG-95 10:50
Date Received: 26-AUG-95
Analysis Date: 06-SEP-1995 06:02
File: /IONTRAP2.i/vc090695.b/9553350a.d
Project Info: Livingston Rail Yard [redacted]
Sample Info: 140101-1460 A,B

Lab No.: 95-53350
Report Date: 09/11/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**<0.50**	**0.19J**
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**0.66**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**2.8**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.1**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.3	103	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 23-AUG-95 12:18
Date Received: 26-AUG-95
Analysis Date: 06-SEP-1995 07:28
File: /chem/IONTRAP2.i/vc090695.b/955335la.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1461 A,B

Lab No.: 95-53351
Report Date: 09/15/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.59**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 23-AUG-95 14:45
Date Received: 26-AUG-95
Analysis Date: 06-SEP-1995 08:10
File: /IONTRAP2.i/vc090695.b/9553352a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1462 A,B

Lab No.: 95-53352
Report Date: 09/11/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.75**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.5	105	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 23-AUG-95 14:50
Date Received: 26-AUG-95
Analysis Date: 06-SEP-1995 23:57
File: /IONTRAP2.i/vc090695.b/9553353a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1463 A,B

[redacted]

Lab No.: 95-53353
Report Date: 09/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.57**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.90	99	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	11.0	110	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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Client: Envirocon, Inc.
Date Sampled: 24-AUG-95 11:10
Date Received: 26-AUG-95
Analysis Date: 07-SEP-1995 00:41
File: /IONTRAP2.i/vc090695.b/9553354a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1464 A,B

Lab No.: 95-53354
Report Date: 09/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	0.28J
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: WTB

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Client: Envirocon, Inc.
Date Sampled: 24-AUG-95 11:10
Date Received: 26-AUG-95
Analysis Date: 07-SEP-1995 01:25
File: /IONTRAP2.i/vc090695.b/9553355a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1465 A,B

Lab No.: 95-53355
Report Date: 09/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.26J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.60	96	80--120
Toluene d8	10.0	9.30	93	80--120
p-Bromofluorobenzene	10.0	11.1	111	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 24-AUG-95 11:25
Date Received: 26-AUG-95
Analysis Date: 07-SEP-1995 02:08
File: /IONTRAP2.i/vc090695.b/9553356a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1466 A,B

Lab No.: 95-53356
Report Date: 09/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	**106-46-7**	**<0.50**	**0.10J**
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**<0.50**	**0.18J**
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.80	98	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.9	109	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

Quality Control Sample: Laboratory Reagent Blank 06-SEP-1995 04:36
Report Date: 09/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc090695.b/blk0906a.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.4	104	80--120
Toluene d8	10.0	10.3	103	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Quality Control Sample: Laboratory Reagent Blank 06-SEP-1995 22:28
Report Date: 09/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc090695.b/blk0906ff.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.40	94	80--120
Toluene d8	10.0	9.30	93	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst:________ Reviewing Supervisor:________

EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 08-SEP-1995 16:58
Lab No.: 95-53354
Report Date: 09/11/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /IONTRAP2.i/vc090895.b/9553354s.d

Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodology.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	5.00	<0.500	4.60	92	60--140
1,1-Dichloroethene	5.00	<0.500	4.90	98	60--140
Tetrachloroethene	5.00	<0.500	4.80	96	60--140
Trichloroethene	5.00	<0.500	4.80	96	60--140

EPA METHOD 624 BLANK SPIKE REPORT

Quality Control Sample: Certified Reference Sample Analysis 06-SEP-1995 01:00
Report Date: 09/11/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc090595.b/qcs0905a.d

Remarks: This certified reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

	CONCENTRATION UNITS = ug/L (ppb)			
Spike Compound	**Added**	**Measured**	**%Rec**	**QC Limits**
Carbon Tetrachloride	5.00	5.50	110	60--140
Chlorobenzene	5.00	5.00	100	60--140
1,4-Dichlorobenzene	5.00	5.00	100	60--140
1,2-Dichloroethane	5.00	5.20	104	60--140
1,1-Dichloroethene	5.00	4.30	86	60--140
trans-1,2-Dichloroethene	5.00	4.30	86	60--140
1,2-Dichloropropane	5.00	5.00	100	60--140
Tetrachloroethene	5.00	5.20	104	60--140
1,1,2-Trichloroethane	5.00	5.30	106	60--140
1,3-Dichlorobenzene	5.00	5.10	102	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Lab Nos. 95–53349–56

Date: 08/26/95

Received by: J. T. Essex

Logged in by: Randa Hoelscher

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s) and associated sample custody information on receipt at the laboratory.

Chain–of–custody form completed & signed	Yes	Comments:	
Chain–of–custody seal properly placed	Yes	Comments:	
Chain–of–custody seal intact	Yes	Comments:	
Signature Match, Chain–of–custody vs. Seal	Yes	Comments:	
Sample received cold	Yes	Comments:	
Samples received within holding time	Yes	Comments:	
Samples received in proper containers and properly preserved	Yes	Comments:	
Client notified about sample discrepancies		Comments:	

Who: ______ By: ______ Date/Time: ______

Method of Shipment Greyhound 1228556241

ENERGY LABORATORIES, INC
P.O. Box 30916 1120 South 27th Street
Billings, Montana 59107

toll-free 800-735-4489
voice 406-252-0325
fax 406-252-6069

CHAIN OF CUSTODY RECORD

PLEASE PRINT OR TYPE ALL INFORMATION EXCEPT SIGNATURES

P.O. #

Project Name / Address: Livingston Rail Yard

Contact Name & Phone: Michael McKinsey (406) 523-1150

Sampler's signature: Michael McKinsey

Invoice to:
Envirocon
500 Taylor
Missoula, MT 59802

Report to:
Envirocon
Attn. Mike McKinsey
500 Taylor
Missoula, MT 59802

DATE	TIME	composite	grab sample	SAMPLE I.D.	number of containers	Sample Type: A W S V U O (Air Water Soils/solids Vegetation Urine Other)	Analysis Requested: 601								Comments, Special Instructions, etc.
8/23/95	926			140101 - 1459 A, B	2	W	X								
	1050			140101 - 1460 A, B			X								
	1218			140101 - 1461 A, B			X								
	1445			140101 - 1462 A, B			X								
	1450			140101 - 1463 A, B			X								
8/24/95	1110			140101 - 1464 A, B			X								
	1110			140101 - 1465 A, B			X								
	1125			140101 - 1466 A, B			X								

	Relinquished (signature)	Date	Time	Received by: (signature)
1.	Michael McKinsey	8/25/95	1015	
2.				
3.				
4.		08/28/95	1115	Received for laboratory by (signature):

RECEIVED
OCT 0 6 199

ENERGY
LABORATORIES

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October 5, 1995

Mike McKinsey
Envirocon, Inc.
P.O. Box 8243
Missoula, MT 59807

On September 8, 1995, these samples, represented by our laboratory numbers 95-54758-67 were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by:

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.

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Client: Envirocon, Inc.
Date Sampled: 05-SEP-95 15:13
Date Received: 08-SEP-95
Analysis Date: 13-SEP-1995 13:09
File: /chem/IONTRAP2.i/vc091395.b/9554758a.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101-1467 A&B

Lab No.: 95-54758
Report Date: 09/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.80	98	80--120
Toluene d8	10.0	9.10	91	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 05-SEP-95 16:15
Date Received: 08-SEP-95
Analysis Date: 13-SEP-1995 13:51
File: /chem/IONTRAP2.i/vc091395.b/9554759a.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101-1468 A&B

Lab No.: 95-54759
Report Date: 09/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**6.0**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**24**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.0**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______

Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 05-SEP-95 16:17
Date Received: 08-SEP-95
Analysis Date: 13-SEP-1995 20:34
File: /chem/IONTRAP2.i/vc091395.b/9554760a.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101-1469 A&B

Lab No.: 95-54760
Report Date: 09/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**6.3**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**25**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.3**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	11.0	110	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 06-SEP-95 09:16
Date Received: 08-SEP-95
Analysis Date: 13-SEP-1995 21:20
File: /chem/IONTRAP2.i/vc091395.b/9554761a.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101- 1470 A&B

Lab No.: 95-54761
Report Date: 09/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**2.1**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.70	97	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.0	100	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

ENERGY LABORATORIES

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P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 06-SEP-95 12:05
Date Received: 08-SEP-95
Analysis Date: 13-SEP-1995 22:52
File: /chem/IONTRAP2.i/vc091395.b/9554762a.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101-1471 A&B

Lab No.: 95-54762
Report Date: 09/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**45**	D
1,2-Dichlorobenzene	**95-50-1**	**0.62**	
1,4-Dichlorobenzene	**106-46-7**	**18**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**19**	
trans-1,2-Dichloroethene	**156-60-5**	**2.2**	
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**14**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**6.4**	
Vinyl Chloride	**75-01-4**	**0.78**	
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	**541-73-1**	**1.6**	
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

ENERGY LABORATORIES

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 06-SEP-95 13:10
Date Received: 08-SEP-95
Analysis Date: 16-SEP-1995 13:38
File: /chem/IONTRAP2.i/vc091595.b/9554763b.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101-1472 A&B

Lab No.: 95-54763
Report Date: 09/27/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**1.5**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.3	103	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 06-SEP-95 13:30
Date Received: 08-SEP-95
Analysis Date: 14-SEP-1995 01:57
File: /chem/IONTRAP2.i/vc091395.b/9554764a.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101-1473 A&B

Lab No.: 95-54764
Report Date: 09/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.60	96	80--120
Toluene d8	10.0	9.40	94	80--120
p-Bromofluorobenzene	10.0	9.80	98	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

ENERGY LABORATORIES

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Client: Envirocon, Inc.
Date Sampled: 06-SEP-95 13:30
Date Received: 08-SEP-95
Analysis Date: 26-SEP-95 20:39
File: /chem/IONTRAP2.i/vc092695.b/9554764b.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101-1473 A&B

Lab No.: 95-54764 Duplicate
Report Date: 09/27/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	9.40	94	80--120
p-Bromofluorobenzene	10.0	10.9	109	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 06-SEP-95 18:52
Date Received: 08-SEP-95
Analysis Date: 14-SEP-1995 05:42
File: /chem/IONTRAP2.i/vc091495.b/9554765a.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101-1474 A&B

Lab No.: 95-54765
Report Date: 09/18/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**186**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**0.73**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Flucrotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.50	95	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	10.9	109	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 50 times dilution.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

ENERGY LABORATORIES

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Client: Envirocon, Inc.
Date Sampled: 06-SEP-95 18:52
Date Received: 08-SEP-95
Analysis Date: 13-SEP-1995 15:23
File: /chem/IONTRAP2.i/vc091395.b/9554766a.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101-1475 A&B

Lab No.: 95-54766
Report Date: 09/14/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**194**	D
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**0.72**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.80	98	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
D= Value derived from a 50 times dilution.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

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Client: Envirocon, Inc.
Date Sampled: 06-SEP-95 20:13
Date Received: 08-SEP-95
Analysis Date: 14-SEP-1995 07:08
File: /chem/IONTRAP2.i/vc091495.b/9554767a.d
Project Info: Proj. No. 140101, Livingston Rail Yard
Sample Info: 140101-1476 A&B

Lab No.: 95-54767
Report Date: 09/18/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.0**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**59**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.9**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.20	92	80--120
Toluene d8	10.0	9.60	96	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Quality Control Sample: Laboratory Reagent Blank 13-SEP-1995 11:34
Report Date: 09/19/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc091395.b/blk0913a.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	9.40	94	80--120
p-Bromofluorobenzene	10.0	9.80	98	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

Quality Control Sample: Laboratory Reagent Blank 13-SEP-1995 19:48
Report Date: 09/19/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc091395.b/blk0913e.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624

VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Quality Control Sample: Laboratory Reagent Blank 14-SEP-1995 04:58
Report Date: 09/16/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc091495.b/blk0914b.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.70	97	80--120
Toluene d8	10.0	9.30	93	80--120
p-Bromofluorobenzene	10.0	9.70	97	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

Quality Control Sample: Laboratory Reagent Blank 16-SEP-1995 12:53
Report Date: 09/19/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc091595.b/blk0916b.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	9.80	98	80--120
Toluene d8	10.0	9.70	97	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 16-SEP-1995 14:23
Lab No.: 95-54761
Report Date: 09/18/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc091595.b/9554761s.d

Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodology.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	5.00	<0.500	4.30	86	60--140
1,1-Dichloroethene	5.00	<0.500	4.90	98	60--140
Tetrachloroethene	5.00	2.1	5.40	66	60--140
Trichloroethene	5.00	<0.500	4.70	94	60--140

Lab Nos. 95-54758-67

Date 09/08/95

Received by Randa Hoelscher

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s) and associated sample custody information on receipt at the laboratory.

Chain-of-custody form completed & signed	Yes	Comments:
Chain-of-custody seal properly placed	Yes	Comments:
Chain-of-custody seal intact	Yes	Comments:
Signature Match, Chain-of-custody vs. Seal	Yes	Comments:
Sample received cold	Yes	Comments:
Samples received within holding time	Yes	Comments:
Samples received in proper containers and properly preserved	Yes	Comments:
Client notified about sample discrepancies		Comments:

Who:______ By:______ Date/Time:______

Method of Shipment UPS

ENERGY LABORATORIES

CHAIN OF CUSTODY RECORD

PROJ. NO. 140101

PROJECT NAME Livingston Rail Yard

SAMPLERS: (Signature) Michael McKinsey

Envirocon
300 Taylor
Missoula, MT 59802

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	601						REMARKS
	9/5/95	1513			140101 -1467 A,B	2	X						
	9/6/95	1616			140101 - 1468 A,B	2	X						
	9/5/95	1617			140101 - 1469 A,B	2	X						
	9/6/95	916			140101 - 1470 A,B	2	X						
	9/6/95	1205			140101 - 1471 A,B	2	X						
	9/6/95	1310			140101 - 1472 A,B	2	X						
	9/6/95				140101 - 1473 A,B	2	X						
	9/6/95	1852			140101 - 1474 A,B	2	X						
	9/6/95	1852			140101 - 1475 A,B	2	X						
	9/6/95	2013			140101 - 1476 A,B	2	X						

Relinquished (Signature) Michael McKinsey	Date/Time 9/7/95 1604	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time 09/08/95 1525	Remarks	

Split Samples:
[] Accepted [] Declined ______ Signature

ROCKY MOUNTAIN FORMS INC., 801 14th Street West Billings MT 59102 (406) 256 4842

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

RECEIVED
SEP 19 1995

September 14, 1995

Michael McKinsey
Envirocon, Inc.
P.O. Box 8243
Missoula, MT 59807

Dear Michael:

On August 23, 1995, these samples, represented by our laboratory numbers 95-52875 through 95-52883 were submitted to our laboratory for analysis.

The test results and quality assurance were reviewed and approved by the undersigned.

Reviewed by: Deborah A Grimm

ENERGY
LABORATORIES

ENERGY LABORATORIES, INC.
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Client: Envirocon, Inc.
Date Sampled: 21-AUG-95 19:32
Date Received: 23-AUG-95
Analysis Date: 29-AUG-1995 20:18
File: /chem/IONTRAP2.i/vc082995.b/9552875a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1450 A&B

Lab No.: 95-52875
Report Date: 09/06/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**9.5**	
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	**0.24J**
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**69**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**6.1**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.7	107	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: JJO

Reviewing Supervisor:

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 21-AUG-95 19:32
Date Received: 23-AUG-95
Analysis Date: 29-AUG-1995 21:05
File: /chem/IONTRAP2.i/vc082995.b/9552876a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1451 A&B

Lab No.: 95-52876
Report Date: 09/06/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**9.4**	
trans-1,2-Dichloroethene	**156-60-5**	**<0.50**	**0.24J**
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**67**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**6.1**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.5	105	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.2	102	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 22-AUG-95 10:28
Date Received: 23-AUG-95
Analysis Date: 29-AUG-1995 22:35
File: /chem/IONTRAP2.i/vc082995.b/9552877a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1452 A&B

Lab No.: 95-52877
Report Date: 09/06/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**0.76**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.8	108	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

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Client: Envirocon, Inc.
Date Sampled: 22-AUG-95 11:28
Date Received: 23-AUG-95
Analysis Date: 29-AUG-1995 23:21
File: /chem/IONTRAP2.i/vc082995.b/9552878a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1453 A&B

Lab No.: 95-52878
Report Date: 09/06/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**8.6**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**124**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**<0.50**	**0.18J**
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.6	106	80--120
Toluene d8	10.0	10.4	104	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: MFB

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Client: Envirocon, Inc.	Lab No.: 95-52879
Date Sampled: 22-AUG-95 12:20	Report Date: 09/06/95
Date Received: 23-AUG-95	Extraction Method: EPA 5030
Analysis Date: 30-AUG-1995 00:51	Sample Matrix: WATER

File: /chem/IONTRAP2.i/vc082995.b/9552879a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1454 A&B

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.0**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**61**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**3.5**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.5	105	80--120
Toluene d8	10.0	10.4	104	80--120
p-Bromofluorobenzene	10.0	10.6	106	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 22-AUG-95 15:04
Date Received: 23-AUG-95
Analysis Date: 30-AUG-1995 01:35
File: /chem/IONTRAP2.i/vc082995.b/9552880a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1455 A&B

Lab No.: 95-52880
Report Date: 09/06/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.7**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**103**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.6**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.3	103	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
D= Value derived from a 10 times dilution.

REPORT COMMENTS: None

Analyst: Reviewing Supervisor:

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Client: Envirocon, Inc.
Date Sampled: 22-AUG-95 15:04
Date Received: 23-AUG-95
Analysis Date: 12-SEP-1995 13:27
File: /IONTRAP2.i/vc091295.b/9552880d.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1455 A&B

Lab No.: 95-52880 Duplicate
Report Date: 09/12/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**1.7**	
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**103**	**D**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**1.7**	
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	8.60	86	80--120
Toluene d8	10.0	9.80	98	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived ftom a 10 times dilution.

REPORT COMMENTS: None

Analyst: ______ Reviewing Supervisor: ______

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Client: Envirocon, Inc.
Date Sampled: 22-AUG-95 16:17
Date Received: 23-AUG-95
Analysis Date: 30-AUG-1995 22:05
File: /IONTRAP2.i/vc083095.b/9552881c.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1456 A&B [redacted]

Lab No.: 95-52881
Report Date: 09/12/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<25	U
Chlorobenzene	**108-90-7**	**34**	
1,2-Dichlorobenzene	95-50-1	<25	U
1,4-Dichlorobenzene	106-46-7	<25	U
1,2-Dichloroethane	107-06-2	<25	U
1,1-Dichloroethene	75-35-4	<25	U
cis-1,2-Dichloroethene	**156-59-2**	**40**	
trans-1,2-Dichloroethene	156-60-5	<25	U
1,2-Dichloropropane	78-87-5	<25	U
Methylene Chloride	75-09-2	<25	U
Tetrachloroethene	127-18-4	<25	U
1,1,1-Trichloroethane	71-55-6	<25	U
1,1,2-Trichloroethane	79-00-5	<25	U
Trichloroethene	79-01-6	<25	U
Vinyl Chloride	**75-01-4**	**43**	
2-Chloroethylvinyl ether	110-75-8	<25	U
Bromodichloromethane	75-27-4	<25	U
Bromoform	75-25-2	<25	U
Chlorodibromomethane	124-48-1	<25	U
Chloroform	67-66-3	<25	U
Bromomethane	74-83-9	<25	U
Chloroethane	75-00-3	<25	U
Chloromethane	74-87-3	<25	U
2-Chlorotoluene	**95-49-8**	**54**	
1,3-Dichlorobenzene	541-73-1	<25	U
Dichlorodifluoromethane	75-71-8	<25	U
1,1-Dichloroethane	75-34-3	<25	U
cis-1,3-Dichloropropene	10061-01-5	<25	U
trans-1,3-Dichloropropene	10061-02-6	<25	U
Fluorotrichloromethane	75-69-4	<25	U
1,1,2,2-Tetrachloroethane	79-34-5	<25	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	500	536	107	80--120
Toluene d8	500	503	101	80--120
p-Bromofluorobenzene	500	492	98	80--120

QUALIFIER CODES EXPLANATION:
U= Indicates compound was analyzed for but not detected.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: Practical quantitation limit reflects a 50 X dilution. The sample was diluted due to foaming sample matrix.

Analyst: ______ Reviewing Supervisor: ______

ENERGY LABORATORIES

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Client: Envirocon, Inc.
Date Sampled: 22-AUG-95 16:17
Date Received: 23-AUG-95
Analysis Date: 30-AUG-1995 03:03
File: /chem/IONTRAP2.i/vc082995.b/9552882a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1457 A&B

Lab No.: 95-52882
Report Date: 09/06/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**41**	**D**
1,2-Dichlorobenzene	**95-50-1**	**2.4**	
1,4-Dichlorobenzene	**106-46-7**	**3.0**	
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	**156-59-2**	**52**	**D**
trans-1,2-Dichloroethene	**156-60-5**	**1.7**	
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**1.3**	
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	**79-01-6**	**2.9**	
Vinyl Chloride	**75-01-4**	**26**	**D**
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	**95-49-8**	**64**	**D**
1,3-Dichlorobenzene	**541-73-1**	**<0.50**	**0.43J**
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.1	101	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	9.90	99	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.
D= Value derived from a 20 times dilution.
J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ____ Reviewing Supervisor: ____

ENERGY LABORATORIES

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489

Client: Envirocon, Inc.
Date Sampled: 22-AUG-95 16:18
Date Received: 23-AUG-95
Analysis Date: 30-AUG-1995 04:31
File: /chem/IONTRAP2.i/vc082995.b/9552883a.d
Project Info: Livingston Rail Yard
Sample Info: 140101-1458 A&B

Lab No.: 95-52883
Report Date: 09/06/95
Extraction Method: EPA 5030
Sample Matrix: WATER

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	**108-90-7**	**<0.50**	**0.20J**
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	**127-18-4**	**<0.50**	**0.46J**
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	**67-66-3**	**<0.50**	**0.36J**
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.2	102	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: ____________ Reviewing Supervisor: ____________

Quality Control Sample: Laboratory Reagent Blank 29-AUG-1995 19:33
Report Date: 09/05/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc082995.b/blk0829b.d
Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.8	108	80--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ____ Reviewing Supervisor: ____

Quality Control Sample: Laboratory Reagent Blank 30-AUG-95 10:52
Report Date: 09/13/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc083095.b/blk0830a.d

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 624
VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)

COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Carbon Tetrachloride	56-23-5	<0.50	U
Chlorobenzene	108-90-7	<0.50	U
1,2-Dichlorobenzene	95-50-1	<0.50	U
1,4-Dichlorobenzene	106-46-7	<0.50	U
1,2-Dichloroethane	107-06-2	<0.50	U
1,1-Dichloroethene	75-35-4	<0.50	U
cis-1,2-Dichloroethene	156-59-2	<0.50	U
trans-1,2-Dichloroethene	156-60-5	<0.50	U
1,2-Dichloropropane	78-87-5	<0.50	U
Methylene Chloride	75-09-2	<0.50	U
Tetrachloroethene	127-18-4	<0.50	U
1,1,1-Trichloroethane	71-55-6	<0.50	U
1,1,2-Trichloroethane	79-00-5	<0.50	U
Trichloroethene	79-01-6	<0.50	U
Vinyl Chloride	75-01-4	<0.50	U
2-Chloroethylvinyl ether	110-75-8	<0.50	U
Bromodichloromethane	75-27-4	<0.50	U
Bromoform	75-25-2	<0.50	U
Chlorodibromomethane	124-48-1	<0.50	U
Chloroform	67-66-3	<0.50	U
Bromomethane	74-83-9	<0.50	U
Chloroethane	75-00-3	<0.50	U
Chloromethane	74-87-3	<0.50	U
2-Chlorotoluene	95-49-8	<0.50	U
1,3-Dichlorobenzene	541-73-1	<0.50	U
Dichlorodifluoromethane	75-71-8	<0.50	U
1,1-Dichloroethane	75-34-3	<0.50	U
cis-1,3-Dichloropropene	10061-01-5	<0.50	U
trans-1,3-Dichloropropene	10061-02-6	<0.50	U
Fluorotrichloromethane	75-69-4	<0.50	U
1,1,2,2-Tetrachloroethane	79-34-5	<0.50	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added ug/L	Measured ug/L	%Rec	QC Limits
1,2-Dichloroethane d4	10.0	10.0	100	80--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.9	109	80--120

QUALIFIER CODES EXPLANATION:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: ________ Reviewing Supervisor: ________

EPA METHOD 624 MATRIX SPIKE REPORT

Quality Control Sample: Matrix Spike Analysis 30-AUG-1995 15:16
Lab No.: 95-52881
Report Date: 09/05/95
Extraction Method: EPA 5030
Sample Matrix: WATER
File: /chem/IONTRAP2.i/vc083095.b/9552881s.d

Remarks: These compounds were spiked into the sample matrix to determine if the sample matrix contributes bias to the analytical results and to monitor the accuracy of the methodology.

CONCENTRATION UNITS = ug/L (ppb)

Spike Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	MS %Rec	QC Limits
Chlorobenzene	250	34.0	236	81	60--140
1,1-Dichloroethene	250	<25.0	190	76	60--140
Tetrachloroethene	250	<25.0	171	68	60--140
Trichloroethene	250	<25.0	192	77	60--140

Lab Nos. 95-52875-83

Date 08/23/95

Received by Randa Hoelscher

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s) and associated sample custody information on receipt at the laboratory.

Chain-of-custody form completed & signed	Yes	Comments:
Chain-of-custody seal properly placed	Yes	Comments:
Chain of custody seal intact	Yes	Comments:
Signature Match, Chain-of-custody vs. Seal	Yes	Comments:
Sample received cold	Yes	Comments:
Samples received within holding time	Yes	Comments:
Samples received in proper containers and properly preserved	Yes	Comments:
Client notified about sample discrepancies		Comments:

Who:________ By:________ Date/Time:________

Method of Shipment: Greyhound 122 855 619 7

ENERGY LABORATORIES, INC
P.O. Box 30916 1120 South 27th Street
Billings, Montana 59107

toll-free 800-735-4489
voice 406-252-6325
fax 406-252-6069

CHAIN OF CUSTODY RECORD

PLEASE PRINT OR TYPE ALL INFORMATION EXCEPT SIGNATURES

P.O. #

Project Name / Address: Livingston Rail Yard

Contact Name & Phone: Michael McKinsey (406) 523-1150

Sampler's signature: Michael McKinsey

Invoice to: Envirocon
500 Taylor
Missoula, MT 59802

Report to: Envirocon
500 Taylor
Missoula MT 59802

DATE	TIME	composite	grab sample	SAMPLE I.D.	number of containers	Sample Type: A W S V U O (Air Water Soils/solids Vegetation Urine Other)	Analysis Requested: 601	Comments, Special Instructions, etc.
8/21/95	1932			140101-1450 A, B	2	W	X	
"	1932			140101-1451 A, B			X	
8/22/95	1028			140101-1452 A, B			X	
	1128			140101-1453 A, B			X	
	1220			140101-1454 A, B			X	
	1504			140101-1455 A, B			X	
				140101-1456 A, B			X	
				140101-1457 A, B			X	
				140101-1458 A, B			X	

	Relinquished (signature)	Date	Time	Received by: (signature)
1.	Michael McKinsey	8/22/95	1700	
2.				
3.				
4.		08/23/95	1230	Received for laboratory by (signature):

APPENDIX B

DATA VALIDATION REPORT

ENVIROCON, INC.

DATA VALIDATION REPORT FOR GROUNDWATER ANALYSES
LIVINGSTON RAIL YARD, LIVINGSTON, MONTANA
AUGUST '94, NOVEMBER '94, FEBRUARY '95, AND MAY '95 SAMPLING ROUNDS

1.0 INTRODUCTION

Data validation levels have been established for the sample round according to the criteria described in Appendix 1.A of the Remedial Investigation Report. The data validation levels and codes for the Livingston Rail Yard project are based on the U.S Environmental Protection Agency region VIII guidance, "Evaluation Criteria for Existing Data from CERCLA Study Areas", Revision 1, January 5, 1985.

Table 1 lists the samples taken during the quarterly and annual sampling rounds from August, 1994 to May, 1995.

Table 1. Samples collected for analyses from August '94, November '94, February '95, and May '95 sampling rounds.

Sample Station	Sample Type	Date Sampled	Date Analyzed	Envirocon Field ID #	Laboratory ID #	EPA Analytical Method
1	Primary	22-Nov-94	04-Dec-94	140101-1355	94-58297	624
1	Primary	31-May-95	07-Jun-95	140101-1428	95-33980	624
1	Laboratory Duplicate	31-May-95	12-Jun-95	140101-1428	95-33980 Duplicate	624
2	Primary	22-Nov-94	04-Dec-94	140101-1354	94-58296	624
2	Primary	30-May-95	06-Jun-95	140101-1426	95-33978	624
3	Primary	30-May-95	07-Jun-95	140101-1424	95-33976	624
4	Primary	24-May-95	05-Jun-95	140101-1410	95-33354	624
5	Primary	18-Aug-94	27-Aug-94	140101-1342	94-39785	624
5	Laboratory Duplicate	18-Aug-94	30-Aug-94	140101-1342	94-39785 Duplicate	624
5	Primary	22-Nov-94	03-Dec-94	140101-1353	94-58295	624
5	Primary	01-Mar-95	08-Mar-95	140101-1378	95-20265	624
5	Primary	23-May-95	04-Jun-95	140101-1403	95-33349	624
6	Primary	22-Nov-94	03-Dec-94	140101-1352	94-58294	624
6	Primary	23-May-95	04-Jun-95	140101-1402	95-33348	624
7	Primary	24-May-95	05-Jun-95	140101-1411	95-33355	624
8	Primary	25-May-95	06-Jun-95	140101-1416	95-33546	624
89-1	Primary	25-May-95	05-Jun-95	140101-1413	95-33543	624
89-1	Field Duplicate	25-May-95	07-Jun-95	140101-1414	95-33544	624
89-2	Primary	18-Aug-94	26-Aug-94	140101-1334	94-39777	624
89-2	Primary	22-Nov-94	03-Dec-94	140101-1358	94-58300	624
89-2	Laboratory Duplicate	22-Nov-94	08-Dec-94	140101-1358	94-58300 Duplicate	624
89-2	Field Duplicate	22-Nov-94	03-Dec-94	140101-1359	94-58301	624
89-2	Primary	01-Mar-95	10-Mar-95	140101-1385	95-20272	624
89-2	Primary	24-May-95	05-Jun-95	140101-1407	95-33353	624
89-3	Primary	18-Aug-94	25-Aug-94	140101-1332	94-39775	624
89-3	Primary	23-Nov-94	07-Dec-94	140101-1375	94-58317	624
89-3	Primary	02-Mar-95	10-Mar-95	140101-1390	95-20277	624
89-3	Primary	01-Jun-95	10-Jun-95	140101-1440	95-33989	624
89-4	Primary	18-Aug-94	26-Aug-94	140101-1339	94-39782	624
89-4	Field Blank	18-Aug-94	26-Aug-94	140101-1340	94-39783	624
89-4	Primary	22-Nov-94	03-Dec-94	140101-1361	94-58303	624
89-4	Primary	02-Mar-95	11-Mar-95	140101-1396	95-20283	624
89-4	Primary	31-May-95	09-Jun-95	140101-1435	95-33985	624
89-4	Field Duplicate	31-May-95	09-Jun-95	140101-1436	95-33986	624
89-6	Primary	26-May-95	07-Jun-95	140101-1421	95-33551	624
89-7	Primary	31-May-95	09-Jun-95	140101-1437	95-33987	624
89-9	Primary	18-Aug-94	26-Aug-94	140101-1337	94-39780	624
89-9	Primary	14-Dec-94	27-Dec-94	140101-1376	94-60852	624
89-9	Primary	01-Mar-95	10-Mar-95	140101-1389	95-20276	624
89-9	Primary	02-Jun-95	16-Jun-95	140101-1449	95-34094	624
89-10	Primary	26-May-95	06-Jun-95	140101-1418	95-33548	624

Table 1. Samples collected for analyses from August '94, November '94, February '95, and May '95 sampling rounds. (continued)

Sample Station	Sample Type	Date Sampled	Date Analyzed	Envirocon Field ID #	Laboratory ID #	EPA Analytical Method
89-10	Field Duplicate	26-May-95	06-Jun-95	140101-1419	95-33549	624
90-2B	Primary	26-May-95	07-Jun-95	140101-1417	95-33547	624
90-3	Primary	02-Jun-95	16-Jun-95	140101-1447	95-34092	624
90-3	Field Duplicate	02-Jun-95	16-Jun-95	140101-1448	95-34093	624
90-6	Primary	18-Aug-94	25-Aug-94	140101-1331	94-39774	624
90-6	Primary	22-Nov-94	04-Dec-94	140101-1356	94-58298	624
90-6	Primary	01-Mar-95	08-Mar-95	140101-1377	95-20264	624
90-6	Primary	23-May-95	04-Jun-95	140101-1400	95-33346	624
92-1	Primary	22-Aug-94	29-Aug-94	140101-1350	94-40010	624
92-1	Laboratory Duplicate	22-Aug-94	01-Sep-95	140101-1350	94-40010 Duplicate	624
92-1	Primary	23-Nov-94	07-Dec-94	140101-1374	94-58316	624
92-1	Primary	02-Mar-95	11-Mar-95	140101-1397	95-20284	624
92-1	Primary	01-Jun-95	12-Jun-95	140101-1441	95-33990	624
92-2	Primary	19-Aug-94	27-Aug-94	140101-1345	94-39788	624
92-2	Primary	22-Nov-94	03-Dec-94	140101-1363	94-58305	624
92-2	Primary	01-Mar-95	09-Mar-95	140101-1386	95-20273	624
92-2	Field Duplicate	01-Mar-95	09-Mar-95	140101-1387	95-20274	624
92-2	Primary	01-Jun-95	15-Jun-95	140101-1442	95-34088	624
92-2	Field Duplicate	01-Jun-95	15-Jun-95	140101-1443	95-34089	624
92-3	Primary	19-Aug-94	27-Aug-94	140101-1346	94-39789	624
92-3	Primary	23-Nov-94	07-Dec-94	140101-1371	94-58313	624
92-3	Primary	01-Mar-95	13-Mar-95	140101-1384	95-20271	624
92-3	Primary	23-May-95	05-Jun-95	140101-1404	95-33350	624
92-3	Laboratory Duplicate	23-May-95	15-Jun-95	140101-1404	95-33350 Duplicate	624
92-3	Field Duplicate	23-May-95	05-Jun-95	140101-1405	95-33351	624
92-4	Primary	18-Aug-94	26-Aug-94	140101-1338	94-39781	624
92-4	Laboratory Duplicate	18-Aug-94	30-Aug-94	140101-1338	94-39781 Duplicate	624
92-4	Primary	22-Nov-94	04-Dec-94	140101-1357	94-58299	624
92-4	Primary	01-Mar-95	10-Mar-95	140101-1388	95-20275	624
92-4	Primary	23-May-95	04-Jun-95	140101-1401	95-33347	624
94-1	Primary	23-Aug-94	29-Aug-94	140101-1351	94-40011	624
94-1	Primary	23-Nov-94	05-Dec-94	140101-1367	94-58309	624
94-1	Primary	02-Mar-95	11-Mar-95	140101-1392	95-20279	624
94-1	Primary	30-May-95	06-Jun-95	140101-1425	95-33977	624
94-2	Primary	23-Nov-94	05-Dec-94	140101-1365	94-58307	624
94-2	Laboratory Duplicate	23-Nov-94	09-Dec-94	140101-1365	94-58307 Duplicate	624
94-2	Primary	02-Mar-95	11-Mar-95	140101-1391	95-20278	624
94-2	Laboratory Duplicate	02-Mar-95	13-Mar-95	140101-1391	95-20278 Duplicate	624
94-2	Primary	30-May-95	06-Jun-95	140101-1422	95-33974	624
B-STREET	Primary	25-May-95	05-Jun-95	140101-1412	95-33542	624
HRO-10	Primary	31-May-95	09-Jun-95	140101-1432	95-33983	624
L-87-2	Primary	18-Aug-94	26-Aug-94	140101-1336	94-39779	624
L-87-2	Primary	23-Nov-94	05-Dec-94	140101-1369	94-58311	624
L-87-2	Field Duplicate	23-Nov-94	07-Dec-94	140101-1370	94-58312	624
L-87-2	Primary	01-Mar-95	08-Mar-95	140101-1381	95-20268	624
L-87-2	Primary	01-Jun-95	14-Jun-95	140101-1439	95-33993	524.2
L-87-3	Primary	18-Aug-94	25-Aug-94	140101-1333	94-39776	624
L-87-3	Primary	22-Nov-94	03-Dec-94	140101-1360	94-58302	624
L-87-3	Primary	02-Mar-95	11-Mar-95	140101-1394	95-20281	624
L-87-3	Field Duplicate	02-Mar-95	11-Mar-95	140101-1395	95-20282	624
L-87-3	Primary	31-May-95	08-Jun-95	140101-1430	95-33981	624
L-87-4	Primary	24-May-95	05-Jun-95	140101-1408	95-33356	524.2
L-87-5	Primary	19-Aug-94	27-Aug-94	140101-1341	94-39784	624
L-87-5	Primary	22-Nov-94	05-Dec-94	140101-1364	94-58306	624
L-87-5	Primary	01-Mar-95	08-Mar-95	140101-1382	95-20269	624
L-87-5	Primary	01-Jun-95	15-Jun-95	140101-1445	95-34091	624
L-87-7	Primary	24-May-95	05-Jun-95	140101-1409	95-33357	524.2

Table 1. Samples collected for analyses from August '94, November '94, February '95, and May '95 sampling rounds. (continued)

Sample Station	Sample Type	Date Sampled	Date Analyzed	Envirocon Field ID #	Laboratory ID #	EPA Analytical Method
L-87-8	Primary	18-Aug-94	26-Aug-94	140101-1335	94-39778	624
L-87-8	Primary	23-Nov-94	05-Dec-94	140101-1368	94-58310	624
L-87-8	Primary	01-Mar-95	08-Mar-95	140101-1380	95-20267	624
L-87-8	Primary	31-May-95	14-Jun-95	140101-1434	95-33992	524.2
L-88-9	Primary	23-May-95	02-Jun-95	140101-1399	95-33345	624
L-88-10	Primary	22-Aug-94	29-Aug-94	140101-1349	94-40009	624
L-88-10	Primary	22-Aug-94	29-Aug-94	140101-1349	94-40009	624
L-88-10	Primary	23-Nov-94	07-Dec-94	140101-1372	94-58314	624
L-88-10	Primary	01-Mar-95	13-Mar-95	140101-1379	95-20266	624
L-88-10	Primary	31-May-95	14-Jun-95	140101-1429	95-33991	524.2
L-88-13	Primary	31-May-95	08-Jun-95	140101-1431	95-33982	624
LS-6	Primary	01-Jun-95	14-Jun-95	140101-1398	95-33994	524.2
LS-11	Primary	19-Aug-94	27-Aug-94	140101-1343	94-39786	624
LS-11	Field Duplicate	19-Aug-94	27-Aug-94	140101-1344	94-39787	624
LS-11	Primary	22-Nov-94	03-Dec-94	140101-1362	94-58304	624
LS-11	Primary	02-Mar-95	11-Mar-95	140101-1393	95-20280	624
LS-11	Primary	02-Jun-95	15-Jun-95	140101-1446	95-34095	524.2
RAINBOW	Primary	30-May-95	06-Jun-95	140101-1423	95-33975	624
VE-50	Primary	31-May-95	09-Jun-95	140101-1433	95-33984	624

2.0 EVALUATION OF BLANK ANALYSES

Laboratory and trip blanks analyzed for these sampling rounds are summarized in Table 2. Detected analytes from blanks are presented in Table 3. The only detected analyte was chloroform, which was a result from the methane rinsate used for decontamination. The detectedchloroform has no effect on the sample results.

Table 2. Laboratory and field blanks analyzed from August '94, November '94, February '95, and May '95 sampling rounds.

Sample Station	Sample Type	Date Sampled	Date Analyzed	Envirocon Field ID #	Laboratory ID #	EPA Analytical Method
Blank	Laboratory Blank	29-Aug-94	- -	Reagent Blank	Reagent Blank	624
Blank	Field Blank	23-Nov-94	05-Dec-94	140101-1366	94-58308	624
Blank	Field Blank	23-Nov-94	07-Dec-94	140101-1373	94-58315	624
Blank	Field Blank	01-Mar-95	09-Mar-95	140101-1383	95-20270	624
Blank	Field Blank	01-Mar-95	13-Mar-95	140101-1383	95-20270 Duplicate	624
Blank	Laboratory Blank	08-Mar-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	10-Mar-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	11-Mar-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	13-Mar-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	13-Mar-95	- -	Reagent Blank	Reagent Blank	624
Blank	Field Blank	23-May-95	05-Jun-95	140101-1406	95-33352	624
Blank	Field Blank	25-May-95	06-Jun-95	140101-1415	95-33545	624

Table 2. Laboratory and field blanks analyzed from August '94, November '94, February '95, and May '95 sampling rounds. (continued)

Sample Station	Sample Type	Date Sampled	Date Analyzed	Envirocon Field ID #	Laboratory ID #	EPA Analytical Method
Blank	Field Blank	26-May-95	07-Jun-95	140101-1420	95-33550	624
Blank	Field Blank	26-May-95	08-Jun-95	140101-1420	95-33550 Duplicate	624
Blank	Field Blank	30-May-95	07-Jun-95	140101-1427	95-33979	624
Blank	Field Blank	31-May-95	09-Jun-95	140101-1438	95-33988	624
Blank	Field Blank	01-Jun-95	15-Jun-95	140101-1444	95-34090	624
Blank	Field Blank/Lab Dup	01-Jun-95	16-Jun-95	140101-1444	95-34090 Duplicate	624
Blank	Laboratory Blank	02-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	04-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	05-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	05-Jun-95	- -	Reagent Blank	Reagent Blank	524.2
Blank	Laboratory Blank	05-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	06-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	06-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	07-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	07-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	08-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	09-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	09-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	12-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	14-Jun-95	- -	Reagent Blank	Reagent Blank	524.2
Blank	Laboratory Blank	15-Jun-95	- -	Reagent Blank	Reagent Blank	524.2
Blank	Laboratory Blank	15-Jun-95	- -	Reagent Blank	Reagent Blank	624
Blank	Laboratory Blank	16-Jun-95	- -	Reagent Blank	Reagent Blank	624

Table 3. Detected analyte concentrations from laboratory and Field Blanks analyzed during the August '94, November '94, February '95, and May '95 sampling rounds.

Sample Type	Date Sampled	Date Analyzed	Envirocon Field ID #	Laboratory ID #	Analyte Detected	Result
Field Blank	23-May-95	05-Jun-95	140101-1406	95-33352	Chloroform	0.61 ug/L
Field Blank	25-May-95	06-Jun-95	140101-1415	95-33545	Chloroform	0.63 ug/L
Field Blank	26-May-95	08-Jun-95	140101-1420	95-33550 Duplicate	Chloroform	0.59 ug/L
Field Blank	26-May-95	07-Jun-95	140101-1420	95-33550	Chloroform	0.63 ug/L
Field Blank	31-May-95	09-Jun-95	140101-1438	95-33988	Chloroform	6.40 ug/L
Field Blank	01-Jun-95	15-Jun-95	140101-1444	95-34090	Chloroform	6.30 ug/L
Field Blank	01-Jun-95	16-Jun-95	140101-1444	95-34090 Duplicate	Chloroform	7.50 ug/L

3.0 EVALUATION OF DUPLICATE ANALYSES

Field and laboratory duplicates collected during the sampling rounds are summarized in Table 4. Sample 89-2, November 22, 1995, had both field and laboratory duplicate analyses; two analytes showed relative percent differences exceeding 30%. The primary sample for 89-2 was found to have a concentrations of 1,3-Dichlorobenzene and 1,4-Dichlorobenzene of 1.0 ug/L, while both the field and laboratory duplicate analyses had < 0.5 ug/L. Because the other two duplicate analyses for the November, 1994, sampling round agreed with the corresponding primary results, and the field and laboratory duplicate for 89-2 agreed, the primary results for 89-2 has been degraded to a qualitative level.

Table 4. Laboratory and field duplicates analyzed from Aug '94, Nov '94, Feb '95, and May '95 sampling rounds.

Sample Station	Sample Type	Date Sampled	Date Analyzed	Envirocon Field ID #	Laboratory ID #	EPA Analytical Method
1	Primary	31-May-95	07-Jun-95	140101-1428	95-33980	624
1	Laboratory Duplicate	31-May-95	12-Jun-95	140101-1428	95-33980 Duplicate	624
5	Primary	18-Aug-94	27-Aug-94	140101-1342	94-39785	624
5	Laboratory Duplicate	18-Aug-94	30-Aug-94	140101-1342	94-39785 Duplicate	624
89-1	Primary	25-May-95	05-Jun-95	140101-1413	95-33543	624
89-1	Field Duplicate	25-May-95	07-Jun-95	140101-1414	95-33544	624
89-2	Primary	22-Nov-94	03-Dec-94	140101-1358	94-58300	624
89-2	Laboratory Duplicate	22-Nov-94	08-Dec-94	140101-1358	94-58300 Duplicate	624
89-2	Field Duplicate	22-Nov-94	03-Dec-94	140101-1359	94-58301	624
89-4	Primary	31-May-95	09-Jun-95	140101-1435	95-33985	624
89-4	Field Duplicate	31-May-95	09-Jun-95	140101-1436	95-33986	624
89-10	Primary	26-May-95	06-Jun-95	140101-1418	95-33548	624
89-10	Field Duplicate	26-May-95	06-Jun-95	140101-1419	95-33549	624
90-3	Primary	02-Jun-95	16-Jun-95	140101-1447	95-34092	624
90-3	Field Duplicate	02-Jun-95	16-Jun-95	140101-1448	95-34093	624
92-1	Primary	22-Aug-94	29-Aug-94	140101-1350	94-40010	624
92-1	Laboratory Duplicate	22-Aug-94	01-Sep-95	140101-1350	94-40010 Duplicate	624
92-2	Primary	01-Mar-95	09-Mar-95	140101-1386	95-20273	624
92-2	Field Duplicate	01-Mar-95	09-Mar-95	140101-1387	95-20274	624
92-2	Primary	01-Jun-95	15-Jun-95	140101-1442	95-34088	624
92-2	Field Duplicate	01-Jun-95	15-Jun-95	140101-1443	95-34089	624
92-3	Primary	23-May-95	05-Jun-95	140101-1404	95-33350	624
92-3	Laboratory Duplicate	23-May-95	15-Jun-95	140101-1404	95-33350 Duplicate	624
92-3	Field Duplicate	23-May-95	05-Jun-95	140101-1405	95-33351	624
92-4	Primary	18-Aug-94	26-Aug-94	140101-1338	94-39781	624
92-4	Laboratory Duplicate	18-Aug-94	30-Aug-94	140101-1338	94-39781 Duplicate	624
94-2	Primary	23-Nov-94	05-Dec-94	140101-1365	94-58307	624
94-2	Laboratory Duplicate	23-Nov-94	09-Dec-94	140101-1365	94-58307 Duplicate	624
94-2	Primary	02-Mar-95	11-Mar-95	140101-1391	95-20278	624
94-2	Laboratory Duplicate	02-Mar-95	13-Mar-95	140101-1391	95-20278 Duplicate	624
BLANK	Field Blank	01-Jun-95	15-Jun-95	140101-1444	95-34090	624
BLANK	Laboratory Duplicate	01-Jun-95	16-Jun-95	140101-1444	95-34090 Duplicate	624
L-87-2	Primary	23-Nov-94	05-Dec-94	140101-1369	94-58311	624
L-87-2	Field Duplicate	23-Nov-94	07-Dec-94	140101-1370	94-58312	624
L-87-3	Primary	02-Mar-95	11-Mar-95	140101-1394	95-20281	624
L-87-3	Field Duplicate	02-Mar-95	11-Mar-95	140101-1395	95-20282	624
LS-11	Primary	19-Aug-94	27-Aug-94	140101-1343	94-39786	624
LS-11	Field Duplicate	19-Aug-94	27-Aug-94	140101-1344	94-39787	624

Table 5. Duplicate analytical results which exceeded relative percent differences (RPD) of 30%.

Sample Station	Date Sampled	Envirocon Field ID #	Laboratory ID #	Analyte	Duplicate Concentration	Primary Result	RPD %
89-2	22-Nov-94	140101-1358	94-58300	1,4-Dichlorobenzene	< 0.5 (lab dup)	1.0 ug/L	66.7
89-2	22-Nov-94	140101-1358	94-58300	1,4-Dichlorobenzene	< 0.5 (field dup)	1.0 ug/L	66.7
89-2	22-Nov-94	140101-1358	94-58300	1,3-Dichlorobenzene	< 0.5 (lab dup)	1.0 ug/L	66.7
89-2	22-Nov-94	140101-1358	94-58300	1,3-Dichlorobenzene	< 0.5 (field dup)	1.0 ug/L	66.7

4.0 EVALUATION OF HOLDING TIMES

Holding times for samples taken from August '94 through May '95 were examined for exceedences. All samples were analyzed within recommended holding time limits.

5.0 EVALUATION OF MATRIX AND SURROGATE SPIKE RESULTS

All matrix spike and surrogate spike recoveries were within acceptable limits. All U.S. Environmental Protection Agency water supply quality control samples were within recovery limits. The matrix spike, surrogate spike, and U.S. EPA water supply quality control sample results are provided at the end of this report.

6.0 MISCELLANEOUS QA/QC EVALUATIONS

The May, 1995, sampling round analytical qa/qc report stated that some samples were inadequately acidified and not properly preserved for EPA Method 601 or 524.2 analysis. John Standish, laboratory director at Energy Laboratories, Inc., Billings, MT, was contacted (Dec. 22, 1995) to discuss the data usability. Mr. Standish stated that refrigeration would properly preserve samples analyzed within 7-days of sampling, and prevent biological degradation which typically occurs in some aromatic compounds, such as benzene, toluene, and ethyl benzene with time. He cited the Federal Register, Vol. 49, No. 209, Oct. 26, 1984, Rules and Regulations, page 145, section 9.3, which states that for preservation of the sample for more than seven days may require adding HCL to adjust the pH to about 2. This section refered to EPA Method 624; however, the same comment would apply to 601 and 524 2 because the methods are similar. Samples analyzed after the 7-day period would have to be degraded to qualitative use (level A). Table 6 lists the samples affected and corresponding validation level.

Table 6. Samples not adequately acidified during the May '95 sampling round.

Sample Station	Sample Type	Envirocon Field ID #	Laboratory ID #	EPA Analytical Method	Date Sampled	Date Analyzed	Holding Period (days)
94-2	Primary	140101-1422	95-33974	624	30-May-95	06-Jun-95	7
3	Primary	140101-1424	95-33976	624	30-May-95	07-Jun-95	8
2	Primary	140101-1426	95-33978	624	30-May-95	06-Jun-95	7
Blank	Field Blank	140101-1427	95-33979	624	30-May-95	07-Jun-95	8
L-87-3	Primary	140101-1430	95-33981	624	31-May-95	08-Jun-95	8
HRO-10	Primary	140101-1432	95-33983	624	31-May-95	09-Jun-95	9
VE-50	Primary	140101-1433	95-33984	624	31-May-95	09-Jun-95	9
L-88-10	Primary	140101-1429	95-33991	524.2	31-May-95	14-Jun-95	14
L-87-2	Primary	140101-1439	95-33993	524.2	01-Jun-95	14-Jun-95	13

7.0 VALIDATION LEVEL ASSIGNMENTS

All analytical results for the Aug '94 through May '95 sampling rounds are acceptable for quantitative data analysis, except those listed in Table 7. Validation code A indicates qualitative usability.

Table 7. Analytical results degraded to qualitative use.

Sample Station	Date Sampled	Envirocon Field ID #	Laboratory ID #	Analyte	Result	Valid Code	Validation Reason
89-2	22-Nov-94	140101-1358	94-58300	1,4-Dichlorobenzene	1.0 ug/L	A	RPD
89-2	22-Nov-94	140101-1358	94-58300	1,3-Dichlorobenzene	1.0 ug/L	A	RPD
3	30-May-95	140101-1424	95-33976	Carbon tetrachloride	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Chlorobenzene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	1,2-Dichlorobenzene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	1,4-Dichlorobenzene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	1,2-Dichloroethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	1,1-Dichloroethene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	cis-1,2-Dichloroethene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	trans-1,2-Dichloroethene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	1,2-Dichloropropane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Methylene chloride	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Tetrachloroethene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	1,1,1-Trichloroethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	1,1,2-Trichloroethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Trichloroethene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Vinyl chloride	<0.5 ug/L	A	PRES

Table 7. Analytical results degraded to qualitative use. (continued)

Sample Station	Date Sampled	Envirocon Field ID #	Laboratory ID #	Analyte	Result	Valid Code	Validation Reason
3	30-May-95	140101-1424	95-33976	2-Chloroethyl vinyl ether	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Bromodichloromethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Bromoform	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Dibromochloromethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Chloroform	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Bromomethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Chloroethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Chloromethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	2-Chlorotoluene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	1,3-Dichlorobenzene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Dichlorodifluoromethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	1,1-Dichloroethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	cis-1,3-Dichloropropene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	trans-1,3-Dichloropropene	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	Trichlorofluoromethane	<0.5 ug/L	A	PRES
3	30-May-95	140101-1424	95-33976	1,1,2,2-Tetrachloroethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Carbon tetrachloride	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Chlorobenzene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	1,2-Dichlorobenzene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	1,4-Dichlorobenzene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	1,2-Dichloroethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	1,1-Dichloroethene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	cis-1,2-Dichloroethene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	trans-1,2-Dichloroethene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	1,2-Dichloropropane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Methylene chloride	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Tetrachloroethene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	1,1,1-Trichloroethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	1,1,2-Trichloroethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Trichloroethene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Vinyl chloride	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	2-Chloroethyl vinyl ether	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Bromodichloromethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Bromoform	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Dibromochloromethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Chloroform	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Bromomethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Chloroethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Chloromethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	2-Chlorotoluene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	1,3-Dichlorobenzene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Dichlorodifluoromethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	1,1-Dichloroethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	cis-1,3-Dichloropropene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	trans-1,3-Dichloropropene	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	Trichlorofluoromethane	<0.5 ug/L	A	PRES
Field Blank	30-May-95	140101-1427	95-33979	1,1,2,2-Tetrachloroethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Carbon tetrachloride	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Chlorobenzene	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	1,2-Dichlorobenzene	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	1,4-Dichlorobenzene	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	1,2-Dichloroethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	1,1-Dichloroethene	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	cis-1,2-Dichloroethene	17.0 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	trans-1,2-Dichloroethene	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	1,2-Dichloropropane	<0.5 ug/L	A	PRES

Table 7. Analytical results degraded to qualitative use. (continued)

Sample Station	Date Sampled	Envirocon Field ID #	Laboratory ID #	Analyte	Result	Valid Code	Validation Reason
L-87-3	31-May-95	140101-1430	95-33981	Methylene chloride	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Tetrachloroethene	88.0 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	1,1,1-Trichloroethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	1,1,2-Trichloroethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Trichloroethene	8.6 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Vinyl chloride	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	2-Chloroethyl vinyl ether	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Bromodichloromethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Bromoform	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Dibromochloromethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Chloroform	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Bromomethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Chloroethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Chloromethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	2-Chlorotoluene	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	1,3-Dichlorobenzene	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Dichlorodifluoromethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	1,1-Dichloroethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	cis-1,3-Dichloropropene	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	trans-1,3-Dichloropropene	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	Trichlorofluoromethane	<0.5 ug/L	A	PRES
L-87-3	31-May-95	140101-1430	95-33981	1,1,2,2-Tetrachloroethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Carbon tetrachloride	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Chlorobenzene	13.0 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	1,2-Dichlorobenzene	1.6 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	1,4-Dichlorobenzene	1.4 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	1,2-Dichloroethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	1,1-Dichloroethene	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	cis-1,2-Dichloroethene	23.0 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	trans-1,2-Dichloroethene	1.2 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	1,2-Dichloropropane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Methylene chloride	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Tetrachloroethene	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	1,1,1-Trichloroethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	1,1,2-Trichloroethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Trichloroethene	9.9 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Vinyl chloride	2.0 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	2-Chloroethyl vinyl ether	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Bromodichloromethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Bromoform	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Dibromochloromethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Chloroform	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Bromomethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Chloroethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Chloromethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	2-Chlorotoluene	22.0 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	1,3-Dichlorobenzene	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Dichlorodifluoromethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	1,1-Dichloroethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	cis-1,3-Dichloropropene	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	trans-1,3-Dichloropropene	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	Trichlorofluoromethane	<0.5 ug/L	A	PRES
HRO-10	31-May-95	140101-1432	95-33983	1,1,2,2-Tetrachloroethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Carbon tetrachloride	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Chlorobenzene	36.0 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	1,2-Dichlorobenzene	<0.5 ug/L	A	PRES

Table 7. Analytical results degraded to qualitative use. (continued)

Sample Station	Date Sampled	Envirocon Field ID #	Laboratory ID #	Analyte	Result	Valid Code	Validation Reason
VE-50	31-May-95	140101-1433	95-33984	1,4-Dichlorobenzene	2.8 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	1,2-Dichloroethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	1,1-Dichloroethene	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	cis-1,2-Dichloroethene	47.0 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	trans-1,2-Dichloroethene	2.2 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	1,2-Dichloropropane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Methylene chloride	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Tetrachloroethene	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	1,1,1-Trichloroethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	1,1,2-Trichloroethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Trichloroethene	16.0 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Vinyl chloride	20.0 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	2-Chloroethyl vinyl ether	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Bromodichloromethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Bromoform	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Dibromochloromethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Chloroform	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Bromomethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Chloroethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Chloromethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	2-Chlorotoluene	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	1,3-Dichlorobenzene	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Dichlorodifluoromethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	1,1-Dichloroethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	cis-1,3-Dichloropropene	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	trans-1,3-Dichloropropene	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	Trichlorofluoromethane	<0.5 ug/L	A	PRES
VE-50	31-May-95	140101-1433	95-33984	1,1,2,2-Tetrachloroethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Benzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Carbon tetrachloride	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Chlorobenzene	6.9 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,2-Dichlorobenzene	0.7 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,4-Dichlorobenzene	0.9 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,2-Dichloroethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,1-Dichloroethene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	cis-1,2-Dichloroethene	37.0 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	trans-1,2-Dichloroethene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,2-Dichloropropane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Ethylbenzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Methylene chloride	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Styrene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Tetrachloroethene	44.0 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Toluene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,2,4-Trichlorobenzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,1,1-Trichloroethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,1,2-Trichloroethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Trichloroethene	12.0 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Vinyl chloride	1.0 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	m+p-Xylene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	o-Xylene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Xylenes, total	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Bromodichloromethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Bromoform	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Dibromochloromethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Chloroform	<0.5 ug/L	A	PRES

Table 7. Analytical results degraded to qualitative use. (continued)

Sample Station	Date Sampled	Envirocon Field ID #	Laboratory ID #	Analyte	Result	Valid Code	Validation Reason
L-88-10	31-May-95	140101-1429	95-33991	Bromobenzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Bromochloromethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Bromomethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	n-Butylbenzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	sec-Butylbenzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	tert-Butylbenzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Chloroethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Chloromethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	2-Chlorotoluene	0.7 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	4-Chlorotoluene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,2-Dibromo-3-chloroprop	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,2-Dibromoethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Dibromomethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,3-Dichlorobenzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Dichlorodifluoromethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,1-Dichloroethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,1-Dichloropropene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,3-Dichloropropane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	cis-1,3-Dichloropropene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	trans-1,3-Dichloropropene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	2,2-Dichloropropane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Trichlorofluoromethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Hexachlorobutadiene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Isopropylbenzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	p-Isopropyltoluene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	Naphthalene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	n-Propylbenzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,1,1,2-Tetrachloroethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,1,2,2-Tetrachloroethane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,2,3-Trichlorobenzene	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,2,3-Trichloropropane	<0.5 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,2,4-Trimethylbenzene	1.3 ug/L	A	PRES
L-88-10	31-May-95	140101-1429	95-33991	1,3,5-Trimethylbenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Chlorobenzene	26.0 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,2-Dichlorobenzene	2.1 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,4-Dichlorobenzene	2.4 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,2-Dichloroethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,1-Dichloroethene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	cis-1,2-Dichloroethene	34.0 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	trans-1,2-Dichloroethene	2.1 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,2-Dichloropropane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Ethylbenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Methylene chloride	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Styrene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Tetrachloroethene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Toluene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,2,4-Trichlorobenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,1,1-Trichloroethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,1,2-Trichloroethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Trichloroethene	13.0 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Vinyl chloride	13.0 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	m+p-Xylene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	o-Xylene	1.7 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Xylenes, total	1.7 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Bromodichloromethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Bromoform	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Dibromochloromethane	<0.5 ug/L	A	PRES

Table 7. **Analytical results degraded to qualitative use. (continued)**

Sample Station	Date Sampled	Envirocon Field ID #	Laboratory ID #	Analyte	Result	Valid Code	Validation Reason
L-87-2	01-Jun-95	140101-1439	95-33993	Chloroform	2.1 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Bromobenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Bromochloromethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Bromomethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	n-Butylbenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	sec-Butylbenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	tert-Butylbenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Chloroethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Chloromethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	2-Chlorotoluene	41.0 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	4-Chlorotoluene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,2-Dibromo-3-chloroprop	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,2-Dibromoethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Dibromomethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,3-Dichlorobenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Dichlorodifluoromethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,1-Dichloroethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,1-Dichloropropene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,3-Dichloropropane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	cis-1,3-Dichloropropene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	trans-1,3-Dichloropropene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	2,2-Dichloropropane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Trichlorofluoromethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Hexachlorobutadiene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Isopropylbenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	p-Isopropyltoluene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	Naphthalene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	n-Propylbenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,1,1,2-Tetrachloroethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,1,2,2-Tetrachloroethane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,2,3-Trichlorobenzene	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,2,3-Trichloropropane	<0.5 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,2,4-Trimethylbenzene	2.2 ug/L	A	PRES
L-87-2	01-Jun-95	140101-1439	95-33993	1,3,5-Trimethylbenzene	<0.5 ug/L	A	PRES

Note: RPD - Relative Percent Difference between primary and duplicate results exceeding 30%
PRES - Inadequate HCL preservative added to sample, sample not analyzed within 7-day period; possible biodegradation of aromatic compounds such as benzene, toluene, and ethyl benzene.